WASHINGTON STATE BOARD OF HEALTH

Notice of Public Meeting

Wednesday, January 8, 2025, 9:30 a.m. – 4:30 p.m.
Physical meeting location:
WA Department of Labor & Industries (Auditorium)
7273 Linderson Way SW
Tumwater, WA 98501-5414
Virtual meeting: ZOOM Webinar
(hyperlink provided below)
Language interpretation available

Final Agenda

Time	Agenda Item	Speaker
9:30 a.m.	Call to Order & Introductions	Patty Hayes, Board Chair
9:40 a.m.	1. Approval of Agenda – Possible Action	Patty Hayes, Board Chair
9:45 a.m.	2. Approval of November 13, 2024, Minutes – Possible Action	Patty Hayes, Board Chair
9:50 a.m.	3. Public Comment	Please note: Verbal public comment may be limited so that the Board can consider all agenda items. The Chair may limit each speaker's time based on the number people signed up to comment.
10:10 a.m.	4. Announcements and Board Business	Michelle Davis, Board Executive Director
10:25 a.m.	5. Department of Health Update	Umair A. Shah, Department of Health, Secretary Michael Ellsworth, Department of Health, Secretary's Designee
10:45 a.m.	Break	
11:00 a.m.	6. Governmental Public Health System Partner 2025 Legislative Priorities	Kelly Cooper, Department of Health Brynn Brady, Washington State Association of Local Public Health Officials Vicki Lowe, American Indian Health Commission
11:20 a.m.	7. Petition for Rulemaking WAC 246-290-220, Drinking Water Materials and Additives – Possible Action	Paj Nandi, Board Member Shay Bauman, Board Staff Lauren Jenks, Department of Health

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11:50 a.m.	8. Governor's Interagency Council on Health Disparities (HDC) Update	LinhPhụng Huỳnh, Council Manager Esmael Xiutecpatl López, Council Engagement Lead
12:20 p.m.	9. Health Impact Review (HIR) Resources	Cait Lang-Perez, Board Staff Lindsay Herendeen, Board Staff
12:30 p.m.	Lunch	
1:15 p.m.	10. 2025 Legislative Statement – Possible Action	Michelle Davis, Board Executive Director
1:35 p.m.	11. Per- and Polyfluoroalkyl Substances (PFAS) Emergency Re-file – Possible Action	Paj Nandi, Board Member Ashley Noble, Board Staff
1:50 p.m.	12. Pro-Equity Anti-Racism (PEAR) Plan – Possible Action	Paj Nandi, Board Member Ashley Bell, Board Deputy Director
2:50 p.m.	13. Auditory Screening Rulemaking Update, Chapter 246-760 WAC	Kelly Oshiro, Board Vice Chair Molly Dinardo, Board Staff
3:10 p.m.	Break	
3:20 p.m.	14. School Rules Project Update – Draft Language	Patty Hayes, Board Chair Andrew Kamali, School Rules Project Manager Nina Helpling, Board Staff
3:50 p.m.	15. Newborn Screening Project Update – Possible Action	Kelly Oshiro, Board Vice Chair Kelly Kramer, Board Staff
4:05 p.m.	16. 2025 Board Meeting Schedule Update – Possible Action	Michelle Davis, Board Executive Director

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4:10 p.m.	17. Board Member Comments and Updates	
4:30 p.m.	Adjournment	

- **To access the meeting online and to register:**
  https://us02web.zoom.us/webinar/register/WN_cZkVnqyKROiLRefb0FxJ0g
- **You can also dial-in using your phone for listen-only mode:**
  Call in: +1 (253) 215-8782 (not toll-free)
  Webinar ID: 819 0957 8431
  Passcode: 682856

Important Meeting Information to Know:

- Times are estimates only. We reserve the right to alter the order of the agenda.
- Every effort will be made to provide Spanish interpretation, American Sign Language (ASL), and/or Communication Access Real-time Transcription (CART) services. Should you need confirmation of these services, please email wsboh@sboh.wa.gov in advance of the meeting date.
- If you would like meeting materials in an alternate format or a different language, or if you are a person living with a disability and need reasonable modification, please contact the State Board of Health at (360) 236-4110 or by email wsboh@sboh.wa.gov. Please make your request as soon as possible to help us meet your needs. Some requests may take longer than two weeks to fulfill. TTY users can dial 711.

Information About Giving Verbal Public Comment at Hybrid Meetings:

- Individuals may give verbal public comments at the meeting, in-person or virtually, during the public comment period.
- The amount of time allotted to each person will depend on the number of speakers present (typically 1 to 3 minutes per person). We will first call on those who have signed up in advance.
- Sign up **by 12:00 Noon the day before a meeting** to participate in the public comment period:
  - Email the Board or

- Register through the **Zoom webinar link. The Zoom webinar link is in the meeting agenda located on the** Meeting Information webpage**.**
- If you are **attending the meeting in person** and did not sign up in advance, you may write your name on the sign-in sheet to provide comments if time allows.

Information About Giving Written Public Comment:

- Please visit the Board's Public Comment webpage for details.

WASHINGTON STATE BOARD OF HEALTH

Draft Minutes of the State Board of Health
November 13, 2024
Hybrid Meeting
ASL (or CART) and Spanish interpretation available
WA Department of Labor & Industries (Auditorium)
7273 Linderson Way SW
Tumwater, WA 98501-5414
Virtual meeting: ZOOM Webinar

State Board of Health Members present:

Patty Hayes, RN, MSN, Chair
Kelly Oshiro, JD, Vice Chair
Kate Dean, MPA
Socia Love, MD
Dimyana Abdelmalek, MD, MPH
Tao Sheng Kwan-Gett, MD, MPH, Secretary's Designee
Mindy Flores, MHCM

State Board of Health Members absent:

Umair A. Shah, MD, MPH
Paj Nandi, MPH
Stephen Kutz, BSN, MPH

State Board of Health staff present:

Michelle Davis, Executive Director
Melanie Hisaw, Executive Assistant
Michelle Larson, Communications Manager
Anna Burns, Communications Consultant
Molly Dinardo, Health Policy Advisor
Shay Bauman, Health Policy Advisor
Jo-Ann Huynh, Administrative Assistant
Eric Sonju, Assistant Attorney General
Hannah Haag, Community Engagement Coordinator
Ashley Bell, Deputy Director
Cait Lang-Perez, Health Policy Analyst
Lindsay Herendeen, Health Policy Analyst
Miranda Calmjoy, Health Policy Analyst
Andrew Kamali, School Rules Project Manager
Communications Consultant
Kelly Kramer, Newborn Screening Project Policy Advisor

Guests and other participants:

Dr. Jen Freiheit, Interim Director of Thurston County Public Health & Social Services
Claire Nitsche, Department of Health
Barbara Morrissey, Department of Health
Holly Davies, Department of Health
Marissa Smith, Department of Ecology
Bonie Brooks, Department of Ecology
Danielle Toepelt, Department of Health

Patty Hayes, Board Chair, called the public meeting to order at 9:30 a.m. and read from a prepared statement (on file).

1. **APPROVAL OF AGENDA**
   Motion: Approve November 13, 2024 agenda
   Motion/Second: Vice Chair Oshiro/Member Flores. Approved as amended unanimously

2. **ADOPTION OF OCTOBER 8, 2024 MEETING MINUTES**
   Motion: Approve the October 8, 2024 minutes
   Motion/Second: Vice Chair Oshiro/Member Abdelmalek. Approved unanimously

3. **PUBLIC COMMENT**
   Patty Hayes, Board Chair, opened the meeting for public comment and read from a prepared statement (on file), allowing three minutes per person.

   Bill Osmunson, quoted RCW 43.20.050 and commented on the State Board of Health (Board) authority to provide a forum for public health policy development in Washington state, and the state's role to ensure water safety, not to address benefits, which falls under the Food and Drug Administration. B. Osmunson talked about the absence of fluoride safety studies on the human brain from major manufacturers.

   Gerald Braude, highlighted injuries from the COVID-19 vaccination, and said Department of Health (Department) leadership has the numbers wrong. G. Braude quoted 238 deaths in Washington and 24,111 reported injuries including, cardiac arrest, Bell's palsy, anaphylactic reactions, myocarditis, irregular menstrual bleeding, spontaneous abortions, and more.

   Emilia Wilburn, spoke about metachromatic leukodystrophy (MLD), a rare genetic disorder. E. Wilburn emphasized that substantial evidence supports early detection through Newborn Screening (NBS), which offers families a future with their child. E. Wilburn said they will await the Recommended Uniform Screening Panel decision in May. If the outcome is positive, Washington will begin its automatic review process with the Board, following a two-year timeline.

   Erin Harnish, spoke in support of fluoridation and the safety of children. E. Harnish talked about safe fluoride levels in water to strengthen teeth and prevent cavities and how recent reports shed light on IQ in children.

   Natalie Chavez, discussed lawsuits and outcomes regarding COVID-19. N. Chavez referenced the website React19.org, saying injections do not stop infection or transmission. N. Chavez said that on October 22, the SW District Health Board in Idaho became the first local health department to remove COVID-19 vaccines after 300 community members urged the board to stop injections during the public comment period.

   Lisa Templeton, talked about inaccurate COVID data, and referenced a peer-reviewed article on challenges in public health. L. Templeton discussed Department data errors

and how the article shows how Washington differs from other states. L. Templeton said the article should be the cause for further investigation. L. Templeton said restrictive measures were ineffective and problematic, causing more harm.

Bob Runnels, expressed support for any change to the fluoridation rules, including the petition to prevent chemicals in drinking water. B. Runnels said ingesting fluoride is no way to target fluoride treatment for the teeth. B. Runnels also advocated for support of a forum to review fluoridation.

Hillary Norris, opposed the petition for rulemaking on drinking water, stating that health care providers support fluoridation to prevent tooth decay and minimize health risks. H. Norris said that evidence supports fluoridation as an effective measure to prevent tooth decay.

Carolina Summer, highlighted the importance of improving the Newborn Screening (NBS) process for timely diagnosis that saves lives. C. Summer thanked the Board and Department for their progress and timeline. C. Summer said there are 10,000 rare diseases and 240 new diseases each year, and we are committed to reducing the time it takes to add a rare condition to the NBS panel. Research shows that financial and social improvement significantly reduces health care costs. C. Summer hopes for sustained funding to support early detection and said with over 3000 new gene therapies, diagnoses are so important.

4. ANNOUNCEMENTS AND BOARD BUSINESS

Michelle Davis, Board Executive Director, thanked Member Dean and Member Love for joining virtually and stated that Member Nandi and Member Kutz sent their regrets.

Executive Director Davis provided staffing updates. Ashley Bell started as Deputy Director on November 1 and will continue as a Tribal liaison. Ashley B. will also wrap up the Pro-Equity Anti-Racism plan and recruit an Administrative Assistant 3 and an Equity and Engagement Manager. On November 16, Ashley Noble will join the team as the Board's new Policy Advisor. Ashley N.'s portfolio will include water recreation, food safety, and notifiable conditions.

Executive Director Davis shared updates on rulemaking work. Board staff is working with the Department of Health (Department) to host workshops with shellfish growers to get feedback on the rules. The first two hybrid meetings are on December 5 and 10 in Olympia.

Executive Director Davis shared that the Board and Council staff will give an overview of the Board at an Epi Lunch & Learn in December. Executive Director Davis also said that Chair Hayes will meet with local health administrators engaged in policy and leadership development through the Washington State Association for Local Public Health Officials to discuss the Board and policy development.

Executive Director Davis provided an update on the Health Impact Review (HIR) team. The HIR team is working on outreach to legislators and will introduce two outreach toolkits during the January Board meeting.

Executive Director Davis reviewed the Board's recent correspondence and other materials, which include the approved Yakima and Cheney water recreation variances, and the CR-103 filed on October 27 for the per- and polyfluoroalkyl (PFAS) emergency rule. It also includes a letter submitted to the Washington Pharmacy Commission on their proposed rules for prescription drug label accessibility standards.

Executive Director Davis asked Board Members to send concepts for the legislative statement that Executive Director Davis can bring to the Board in January.

Patty Hayes, Board Chair, appreciated the reminder about legislative priorities.

Note: Agenda Item 6 was moved here. See notes below.

5. LOCAL HEALTH JURISDICTION UPDATE – THURSTON COUNTY PUBLIC HEALTH & SOCIAL SERVICES

Ashley Bell, Board staff, introduced Dr. Jen Freiheit, Interim Director of Thurston County Public Health & Social Services. Ashley B. highlighted Dr. Freiheit's deep commitment to public health practice and role in Thurston County.

Jen Freiheit, PhD, MCHES, Interim Director, Thurston County Public Health & Social Services, discussed internal challenges such as workforce retention, leadership turnover, and burnout due to the COVID-19 pandemic. Dr. Freiheit emphasized the need for a "reset" in public health, focusing on improving staff retention and capacity. Dr. Freiheit noted the increasing need for public health to adapt to modern challenges and evolving community needs. To address the internal challenges, the county is developing an 18-month onboarding and mentorship program. The county is also prioritizing language accessibility to ensure inclusivity. Dr. Freiheit also expressed gratitude for Federal Public Health Services (FPHS) funding, which helped hire over 28 new positions.

Dr. Freiheit shared that the Thurston County Local Board of Health (LBOH) is considering declaring social isolation and loneliness as a public health crisis. This proclamation follows a federal announcement from the Surgeon General's recent announcement. Thurston County is working with United Way, YMCA, and local library systems to launch a campaign addressing social isolation across all age groups. If approved, Thurston will become the first county in Washington state to officially declare loneliness a public health crisis.

Dr. Freiheit highlighted ongoing strategic planning efforts. This includes the hiring of a new epidemiologist to focus on data equity and the communications team working on a health equity report. Thurston County LBOH is also considering new subcommittees focused on policy review, education, and data.

Dr. Freiheit outlined the work of the Behavioral Health Unit and collaborating with the Veterans Assistance Board to develop a veterans resource hub in Lacey. This hub will help address Social Determinants of Health. Dr. Freiheit discussed the hiring of a new nursing supervisor to help streamline operations and improve procedures. The county is also working to improve violence and suicide prevention programs and expand services

for the aging population. The Environmental Health Team is revising its fee schedule, while the Fiscal and HR Teams are enhancing internal systems and processes.

Tao Kwan-Gett, Secretary's Designee, thanked Dr. Freiheit for their leadership and the community work in Thurston County. Member Kwan-Gett acknowledged the collective impact approach and noted that at the Department, social connection is also a priority through the Be Well WA Initiative. Member Kwan-Gett offered to explore collaboration opportunities with Thurston County.

Dr. Freiheit expressed interest in learning more about Be Well WA and exploring potential collaboration opportunities.

Kate Dean, Board Member, praised the work in Thurston County and inquired about the impacts of reproductive health and obstetrics challenges, particularly in rural areas, and whether Thurston County is addressing these issues.

Dr. Freiheit acknowledged that reproductive health is a gap in Thurston County. Their Nurse-Family Partnership program includes reproductive care in home visits and there are ongoing efforts to expand services. Thurston is also exploring barriers to access and the involvement of community partners in improving reproductive health care.

The Board took a break at 10:50 a.m. and reconvened at 11:05 a.m.

6. **2025 PROPOSED MEETING SCHEDULE (moved to before agenda item 5)**
Michelle Davis, Executive Director, reviewed the proposed 2025 Board meeting schedule and requested that Board Members share any suggestions for future meeting locations. Executive Director Davis highlighted that the August and November dates were shifted from the typical cadence of the second Wednesday in the month to the third Wednesday.

Patty Hayes, Board Chair, noted the Board will meet on the second Wednesday in October and that WSPHA has shifted their annual meeting to the end of October. Chair Hayes talked about the School Rules Technical Advisory Committee (TAC) meetings, and that the Board and TAC will co-locate at the April Board meeting.

Motion: The Board approves the proposed 2025 meeting schedule.
Motion/Second: Member Flores/Member Abdelmalek. Approved unanimously.

7. **PANEL – STATE AGENCY RESPONSE TO PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**
Shay Bauman, Board staff, introduced panelists and gave a brief history of Board work on per- and polyfluoroalkyl substances (PFAS). Panelists: Claire Nitsche, Department of Health; Barbara Morrissey, Department of Health; Holly Davies, Department of Health; Marissa Smith, Department of Ecology; Bonie Brooks, Department of Ecology (multiple presentations on file).

Patty Hayes, Board Chair, asked about improvements in nonstick pans. Panelists responded that the Department is prioritizing this issue. They have seen a shift away from the most common PFAS in cookware, and more PFAS-free options are becoming

available. Panelists also mentioned ongoing efforts to research these processes and implement rulemaking to require PFAS reporting in pans.

Socia Love, Board Member, asked if there is a market already for PFAS free firefighting foam. Panelists answered that PFAS was restricted in Washington in 2018. There is a foam collection program as well.

Kate Dean, Board Member, asked what the panelists perceive as the greatest risk as far as various sources of PFAS exposure. The panel thinks that drinking water and food are the primary sources of exposure. Beyond that, other elements can be a significant exposure depending on the products you're using. They are also thinking about looking upstream at what is putting the PFAS into our food and water.

Member Dean asked if they looked at specific impacts for Tribal communities. Panelists said they are having conversations about looking at levels in Elk and traditionally consumed plants.

Tao Kwan-Gett, Secretary's Designee, asked about the roles of the various levels of government (local, state, federal), and asked for an overview of this. Panelist Brooks answered that for Department of Defense sites, the military is the lead agency and provided examples of other site-specific arrangements.

Dimyana Abdemalek, Board Member, asked panelists how local health jurisdictions could employ these methods and if the community had shared preferences for communication methods. Panelists stressed the need to work with trusted community messengers to share the message, noting that preferred methods vary by community.

Member Kwan-Gett asked how PFAS regulation compliance is monitored and enforced. Panelists responded that they do spot testing on various products and then reach out to manufacturers and give them the tools they need to comply.

Member Abdelmalek asked how they connect manufacturers. Panelists explained that they typically initiate contact with manufacturers and have the authority to order the release of information from them.

Member Kwan-Gett asked if there are other products besides cosmetics that they are looking at for a toxic-free approach. Panelists responded that they are now looking at restricting multiple chemicals that will hopefully give a more wholistically safe product.

Member Dean asked what is the difference between reporting and restriction; how do you get from one to the other? Panelists responded that they can only propose restrictions if they can prove that safer alternatives are available. Reporting requirements help them see where PFAS are still being used so they can see where to prioritize their work. Reporting requirements also help manufacturers learn more about what chemicals are in their products.

Mindy Flores, Board Member, asked how panelists are addressing PFAS fatigue in the community. Panelists responded that PFAS fatigue is real and shared that they are using positively framed messaging, highlighting that any improvement is valuable. This

approach helps people focus on progress, emphasizing that while PFAS remains in the environment, it doesn't have to stay in our bodies.

Chair Hayes requested that we continue to stay linked together on this work.

The Board recessed for lunch at 12:46 p.m. and reconvened at 1:30 p.m.

8. **PETITION FOR RULEMAKING WAC 246-290-220, DRINKING WATER MATERIALS AND ADDITIVES**

Kate Dean, Board Member, introduced the petition from Washington Action for Safe Water. Shay Bauman, Board staff, reviewed the petition, including background information and new materials submitted for Board Members (materials on file).

Board Members discussed timelines for the next steps from the Department of Health and the Environmental Protection Agency (EPA) and clarified the Board's use of recommendations and noted that recommendations do not belong in rule. Board Members agreed that more information was needed from the EPA and other sources.

Motion: The Board declines the petition for rulemaking to amend WAC 246-290-220 for the reasons articulated by Board Members. The Board directs staff to notify the petitioner of the Board's decision.
Motion/Second: Member Dean/Member Kwan-Gett. Approved unanimously

9. **NEWBORN SCREENING PROCESS AND CRITERIA REVIEW**

Kelly Oshiro, Board Vice Chair, introduced the item. Vice Chair Oshiro reviewed the Board's statutory authority under RCW 70.83.050 to define and adopt rules for screening newborn infants for hereditary conditions. Vice Chair Oshiro said that the last time the Board reviewed its process and criteria for considering newborn screening conditions was in 2015. The Board has convened a Newborn Screening Technical Advisory Committee (TAC) to review and streamline the condition review process.

Kelly Kramer, Board staff, delivered a presentation reviewing the Newborn Screening TAC timeline, voting results from the first TAC meeting, preliminary discussions around the criteria review process, and next steps for the Board (presentation on file).

Tao Kwan-Gett, Secretary's Designee, thanked the TAC for their work. Member Kwan-Gett asked whether the 2-year timeframe to review conditions in the Recommended Uniform Screening Panel (RUSP) was also the cadence for reviewing conditions. Kelly said that the recommendation meant to establish a 2-year timeframe for Washington state to review new conditions added to the RUSP, not to establish a cadence for reviewing conditions.

Patty Hayes, Board Chair, asked about the criteria review process. Kelly said that the TAC has not begun the criteria review process yet. Chair Hayes asked Kelly to clarify the suggestion for Criteria #4 (Public Health Rationale) to consider available resources for rural communities. Kelly said this suggestion was brought up by a clinician working in rural eastern Washington as a part of preliminary discussions about the criteria review process. Vice Chair Oshiro added that the TAC wanted to tailor the criteria to Washington state, and so, they also wanted to tailor the public health rationale. Vice

Chair Oshiro said that the TAC wanted to consider resource availability in different areas of Washington. Chair Hayes affirmed the importance of considering rural access issues and expressed interest in seeing how this suggestion would be applied. Vice Chair Oshiro added that the TAC should consider how health equity is reflected in the criteria.

Kate Dean, Board Member, discussed remembering the Board came to a different conclusion than the RUSP about one condition. Molly Dinardo, Board staff, said that this happened with MPS-II, or Hunter's disease, which was recommended to the RUSP. The Board did a preliminary analysis in March 2023 to see if the condition met qualifying assumptions. At the time, the Board decided to postpone the review for two years to wait for additional data.

Member Dean asked who funds screenings and whether the Legislature is interested in continuing to fund screenings as more conditions are added. Molly said that Board staff are continuing to ask these questions. Molly said that the Board received guidance from the Legislature last session and that people also petition conditions for consideration through the Legislature. These discussions will continue with the Board, the Department of Health, and the Health Care Authority. Chair Hayes clarified that the Legislature and Governor approve the screening fee to be increased.

Member Kwan-Gett spoke in favor of the TAC's recommendation for updating the condition review process. Member Kwan-Gett said that Option 3 allows Washington state the autonomy to consider conditions aside from the RUSP, to test based on Washington's demographic makeup, and to avoid duplicative evidence review work.

Dimyana Abdelmalek, Board Member, asked how the criteria review process might be affected if the Board chooses Option 3 as the updated condition review process. Kelly said that the criteria are used in the next step after the condition has been selected for review.

Motion: The Board accepts the Newborn Screening Technical Advisory Committee's (TAC's) recommendation for the Board to assume that conditions on the Federal Recommended Uniform Screening Panel meet the Board's qualifying assumption and directs staff to update the Board newborn screening process document accordingly. The Board also directs the TAC to continue reviewing the newborn screening criteria and provide recommendations to the Board.
Motion/Second: Member Abdelmalek/Member Kwan-Gett. Approved unanimously

Mindy Flores, Board Member, asked whether a 2-year timeframe might be sufficient for the Board to respond to ongoing petitions. Kelly said that Board staff think a 2-year timeframe is sufficient and that other states who follow this model have said it works well for them. Kelly added that Washington state waits for a federal review to be completed before reviewing a petition. Kelly also said that Board staff will request additional information from petitioners who have been denied by a federal review.

10. UPDATE – SCHOOL RULE REVIEW PROJECT

Patty Hayes, Board Chair, introduced the item. Chair Hayes commended the School Review Project Technical Advisory Committee (TAC) members and staff for their work. The Board is in touch with Senator June Robinson to provide updates on their work.

Andrew Kamali, Board staff, updated the Board on the School Review Project TAC's progress to date. There have been six TAC meetings and two subcommittee meetings. TAC members have fully approved 11 sections of rule language and partially approved three. TAC members have six full sections and the remaining of the three partially approved sections to go. Andrew also spoke about the TAC's recent community engagement efforts with the North Thurston School District and Catholic schools in western Washington.

Andrew discussed future milestones for the TAC. The rule will mostly be ready for informal public comment in mid-December. The December 4 meeting will include a workshop with representation from the Department of Commerce and the Department of Health (Department). There will be a fiscal summit in January which will include industry, the Department, and the Office of Superintendent of Public Instruction, after which the TAC will look into the implementation process. In April, the TAC and Board meeting will combine to discuss together school environmental health and safety.

Chair Hayes spoke about the TAC's report. Chair Hayes said that it will be an opportunity to highlight TAC Members' concerns to the Legislature, such as the potential conflict with green building standards and public health guidance. Chair Hayes noted that Senator Robinson was very positive about this opportunity. Chair Hayes said the report also presented an opportunity to do the phased implementation.

Kate Dean, Board Member, asked if Senator Robinson has given any indications regarding the Legislature's desire to fund this work and the phased implementation idea. Member Dean also asked about the TAC's outreach to rural health jurisdictions and school districts that might not have existing infrastructure to implement this rule. Chair Hayes said that Senator Robinson was interested in the TAC's recommendations, including the idea of phased implementation, but has not shared about the Legislature's capacity to fund. Chair Hayes said that overall, it seems like it will be a tight budget year. Chair Hayes said that the TAC has taken every opportunity to meet with interested parties. Local health jurisdictions are aware of their work and that the rule language is flexible for them to work together. The report will allow the TAC to highlight cost impacts to schools and local health jurisdictions.

Michelle Davis, Board Executive Director, spoke about the work of Foundational Public Health Services. There are now 19 local health jurisdictions with programs and models for shared services that can support jurisdictions with less infrastructure. Executive Director Davis spoke optimistically about the future of school environmental health and partnerships between school districts and public health.

Andrew said that staff are developing an informational document to share with local health jurisdictions regarding the impact of the rule and offering opportunities to connect.

Chair Hayes said that the TAC meetings have had riveting discussions and expressed joy about the work.

Dimyana Abdelmalek, Board Member, shared excitement that the Board is now able to do this work with the budget proviso.

The Board took a break at 2:42 p.m. and reconvened at 3:00 p.m.

11. REQUEST FOR DELEGATED RULEMAKING, WAC 246-282-005 SANITARY CONTROL OF SHELLFISH MINIMUM PERFORMANCE STANDARDS TO REVISE THE REFERENCE TO THE RECENTLY ADOPTED MODEL ORDINANCE

Patty Hayes, Board Chair introduced the item regarding minimum performance standards of shellfish control.

Danielle Toepelt, Department of Health, provided background information on the rule, potential changes to WAC-246-282-005, and delegation considerations for the Board (see presentation on file).

Tao Kwan-Gett, Secretary's Designee, asked if there were any notable changes with the revision of the model ordinance. Danielle said the changes are editorial.

Dimyana Abdelmalek, Board Member, asked how the Foodborne Illness Notification System (FINS) is affecting the ordinance for shellfish, and mentioned the acute GI concerns from shellfish. Danielle said that the Department is working with the FINS team, and it will streamline when cases arise. The portal may be utilized next year.

Kate Dean, Board Member, asked about changes to the industry in response to the model ordinance. Danielle said the Food and Drug Administration is working on a general summary of changes. The team will send it out to the industry.

Shay Bauman, Board staff, said that the Board is hosting rulemaking workshops. Chair Hayes asked what the timeline is if the Board approves rulemaking. Shay responded that historically delegation moves quickly.

Motion: The Board moves to delegate rulemaking authority to the Department of Health to adopt by reference the newest version of the NSSP *Guide for the Control of Molluscan Shellfish.*
Motion/Second: Member Dean/Vice Chair Oshiro. Approved unanimously

12. RECOGNIZING BOARD MEMBER CONTRIBUTIONS

Patty Hayes, Board Chair, thanked Board Member Kate Dean for their service and leadership. Chair Hayes read from the resolution acknowledging Member Dean's service (material on file).

Member Dean was appointed to the Board in February 2023 to represent county officials. Member Dean's work on Environmental Health issues, onsite sewage, and water recreation was highlighted, along with 25 years of community revitalization and a tenure on the Board of Commissioners since 2017. The Board expressed deep

gratitude for Kate Dean's dedicated service, commitment to public health, and integrity in making difficult decisions for the greater good.

Motion/Second to approve Resolution: Vice Chair Oshiro/Member Abdelmalek. Approved unanimously

13. BOARD MEMBER COMMENTS

Tao Kwan-Gett, Secretary's Designee, provided an update on Washington State's first cases of highly pathogenic avian influenza (HPAI) reported in Franklin County a month ago. The cases originated from a poultry farm outbreak, with workers exposed during bird culling. There were nine confirmed and three possible cases reported that resulted in mild illness. Member Kwan-Gett emphasized the importance of collaboration between local, state, and federal health agencies. Member Kwan-Gett highlighted issues of health equity and that several exposed workers were migrant and non-English speaking. Member Kwan-Gett stressed the need for continued engagement with community partners supporting migrant health. The Department is monitoring human cases, especially those with severe disease or evidence of human-to-human transmission.

Michelle Davis, Board Executive Director, shared that Board Members received a hard copy of the 2024 State Health Report. Executive Director Davis commended Board staff Molly Dinardo, Hannah Haag, and Michelle Larson for their contributions to the writing and design of the report. The Board's Community Engagement team is spreading awareness of the finalized report to community partners.

Executive Director Davis asked the Board to keep their eyes out for upcoming recruitments and to share ideas for the Board's Legislative Statement.

Patty Hayes, Board Chair, shared compliments for the State Health Report.

ADJOURNMENT

Patty Hayes, Board Chair, adjourned the meeting at 3:30 p.m.

WASHINGTON STATE BOARD OF HEALTH

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Patty Hayes, Chair

WASHINGTON STATE BOARD OF HEALTH

Public Comment

Accepted until noon three business days prior to meeting

Added to this packet on Friday, January 3, 2025 at 12:20 p.m. on the following 102 pages.

Additional public comments uploaded on Monday, January 6, 2025 at 4:36 p.m. starting on page 119.

From: Washington State Oral Health Coalition WSOHC
Sent: 1/2/2025 7:50:56 PM
To: DOH WSBOH
Cc:
Subject: My Public Comments

External Email

Please find the below comments from the Washington State Oral Health Coalition regarding the upcoming 1/8 Board of Health meeting, topic related to the petitioners request that the Board amend WAC 246-290-220 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fapp.leg.wa.gov%2FWAC%2Fdefau
290-
220&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C81d9822c3ddd4f6149c208dd2ba9d2ab%7C11d0e217
to include a new subsection related to water fluoridation.

We ask that the Board reject this amendment.

While we understand the questions that the NTP monograph has raised for the general public, community water fluoridation was not being evaluated. In fact, NTP states that its final report "was not designed to evaluate" the health effects of fluoridated tap water nor did it collect enough data to perform that task. Communities should not be misled by people who try to use this monograph to push for an end to water fluoridation. The only concerns raised by the report apply when the level of fluoride in water is more than double the level used for water fluoridation.

A recent study in Australia found that community water fluoridation did not affect brain development. The link is here: https://www.uq.edu.au/news/article/2024/12/study-finds-fluoride-water-does-not-affect-brain-development.This <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uq.edu.au%2Fnews%2Fartic
finds-fluoride-water-does-not-affect-brain-
development.This&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C81d9822c3ddd4f6149c208dd2ba9d2ab
study was performed with the recognition that "it is important to maintain confidence in the risk and benefit balance of major caries-preventive programs using fluoride." We believe this is an important part of the ongoing conversation and should consider carefully evaluating research and findings as studies are conducted.

For nearly 80 years, leading cities and water districts throughout the United States have embraced community water fluoridation as a valuable health measure that has profoundly improved the oral – and overall – health for millions of people. We urge you to continue to support water fluoridation in our state.

Studies consistently show water fluoridation helps protect teeth against cavities regardless of age, income level and other social determinants. Community leaders, health experts and advocates stand behind water fluoridation because they recognize that preventing cavities is far preferable to treating painful tooth decay and oral disease. The American Dental Association reaffirmed it support via a statement in August, 2024: https://www.ada.org/about/press-releases/american-dental-association-reaffirms-support-for-community-water-
fluoridation#:~:text=The%20findings%20in%20the%20NTP,intervention%2C%20according%20to%20the

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ada.org%2Fabout%2Fpress-releases%2Famerican-dental-association-reaffirms-support-for-community-water-fluoridation%23%3A~%3Atext%3DThe%2520findings%2520in%2520the%2520NTP%2Cintervention%252>. The American Academy of Pediatrics also reaffirmed their position: https://publications.aap.org/aapnews/news/29918/AAP-stands-by-recommendations-for-low-fluoride <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpublications.aap.org%2Faapnews%stands-by-recommendations-for-low-fluoride&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C81d9822c3ddd4f6149c208dd2ba9d2ab%7C11d0e>.

Cavities, tooth loss and swollen gums affect people of all ages. For children, uncomfortable tooth decay can influence school attendance, behavior, nutrition, speech patterns, self-esteem and a child's ability to thrive. Among working adults, rotting and missing teeth can impact employment opportunities, overall health, self-esteem, nutrition and how others perceive you. And for older adults, maintaining good oral health is more important than ever with a greater number of senior citizens retaining their original teeth than prior generations thanks in large part to water fluoridation and other dental care advances.

Treating cavities also can be expensive and intensify health and societal inequities. The lifetime cost of just one cavity is $6,160. And not everyone is able to see a dentist regularly, meaning lower-income families, older adults on fixed incomes and young adults just starting out too often forgo care. Providing the right balance of fluoride in our tap water ensures everyone has a fair chance at added protection for their teeth against cavities.

On behalf of the Washington State Oral Health Coalition Board

Executive Committee Members:
Marcy Bowers, Chair
Russell Maier, MD, Vice Chair
Stacy Torrance, Treasurer
Sarah Vander Beek, DMD, Secretary

Correspondence can be directed to this email and will be responded to by a member of the Board.

From: Itle, Amber (AGR)
Sent: 1/3/2025 12:32:17 PM
To: lisa@informedchoicewa.org,DOH WSBOH
Subject: RE: for BOH packet for its January 8 meeting?prevent both fear and infection


attachments\535DF1AE9C5C4EAE_image004.png


attachments\EAA147086143417A_image003.png

Thanks for your email and information.

Because Avian Influenza is a foreign animal disease, we use the USDA HPAI RedBook <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.aphis.usda.gov%2Fanimal-emergencies%2Fhpai&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8c4a54bd0c08dd2c3 for response that includes a section on proper cleaning and disinfection that includes hydrogen peroxide along with many other viable disinfectant options (FAD PReP/NAHEMS Guidelines: Cleaning & Disinfection <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.aphis.usda.gov%2Fsites%2F 5.4.7 Oxidizing Agents).

Options include physical (heat/ radiation) and many chemical disinfection methods. The hardest part is getting the environment clean enough to allow disinfection to occur properly. Cleaning and disinfection options are up to the producer. Many factors such as efficacy, product availability, housing type/ size/ scale, application ability, public safety/ health and environmental impacts all play a role and we tailor each C/D plan based on the best customized, science based options to meet the needs of each unique operation.

Thanks again for the information.

Have a great day.

Amber

Amber Itle VMD MS | Washington State Veterinarian

Washington State Department of Agriculture

Office: 360-902-1878 | Cell: 360-961-4129 | agr.wa.gov <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fagr.wa.gov%2F&data=05%7C02%

From: lisa@informedchoicewa.org <lisa@informedchoicewa.org>

Sent: Friday, January 3, 2025 10:54 AM
To: DOH WSBOH <WSBOH@SBOH.WA.GOV>
Cc: 'aitle@agr.wa.gov'; 'annette.cleveland@leg.wa.gov'; 'Marcus.Riccelli@leg.wa.gov'; Morgan, Melanie <Melanie.Morgan@leg.wa.gov>; Reeves, Kristine (LEG) <kristine.reeves@leg.wa.gov>; Salomon, Jesse <Jesse.salomon@leg.wa.gov>
Subject: for BOH packet for its January 8 meeting?prevent both fear and infection

External Email

Dear Board of Health members,

I have cc'ed our state veterinarian, Dr. Amber Itle, as well as the chairs of our Senate and House health and agriculture committees. The following is a message similar to one I sent in August. I have not received a reply from the parties I copied at that time.

Now that California has declared an emergency regarding avian flu (https://www.gov.ca.gov/2024/12/18/governor-newsom-takes-proactive-action-to-strengthen-robust-state-response-to-bird-flu/)--<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.gov.ca.gov%2F2024%2F12%
newsom-takes-proactive-action-to-strengthen-robust-state-response-to-bird-flu%2F&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8c4a54bd0c08dd2c35b4a6%7C11
in the absence of a single case of human-to-human transmission worldwide (https://www.cdc.gov/bird-flu/situation-summary/inhumans.html <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.cdc.gov%2Fbird-flu%2Fsituation-summary%2Finhumans.html&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8c4a54bd0c0
)--it is critical for our state to use available tools to empower citizens and farmers to protect themselves and their animals—all without creating an atmosphere of fear.

Hydrogen peroxide (H2O2) has been well-studied for use with animals, as well as humans, and has been shown to deactivate bird flu viruses. Solutions of hydrogen peroxide can be safely misted in coops and barns, directly on animals and eggs. Likewise, people of all ages can utilize this and other inexpensive antiviral substances via nasal rinse and gargling to prevent and stop upper respiratory infection. Please see the 21 studies linked below.

I can't stress enough how important it is that Washington State agencies embrace and educate the public on the benefits of oral and throat hygiene. Iodine solutions can inactivate any virus in 15 seconds, H2O2 in less than 30 seconds, and essential oils in under a minute. These substances can kill bacteria, too. These are not controversial prevention strategies; they are well-established to be safe and effective. Adding these tools to the public health toolbox could drastically prevent infection, reduce transmission, and lower incidence of severe infection.

Wouldn't it be exemplary if Washington took the lead on promoting this practice, and we ended up with the lowest respiratory infection rates in the nation? Public health policies

take time to disseminate, of course, but the DOH has a vast network and the ability to communicate with healthcare providers and the public with a simple push of the "send" button for emails, social media, press releases, even texts. Information about nasal spray/rinse and gargling could be including in the DOH's existing workflow.

The messaging could be included wherever handwashing is mentioned in regards to helping prevent the spread of respiratory infection. The supporting science spans decades, and the studies during COVID provide even more evidence. This education outreach doesn't need to recommend any specific OTC products. Just as DOH doesn't tell people what specific type or brand of soap to use, neither would they have to say what specific type or brand of nasal or gargling product to use. They could simply explain the basics, the ingredients studied (saline, iodine, H2O2, essential oils, grapefruit seed extract, etc.), and use standard language of "see your healthcare provider" and "use as directed."

I do believe we can easily do this!

Questions for Dr. Itle:

* Are you already aware of the many H2O2 studies and animal applications for preventing the spread of infection? Examples:
    * Hydrogen Peroxide in Agriculture: A Proactive Approach to Farm Sanitation and Disease Prevention <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnutrihydro.com%2Fhydrogen-peroxide-in-agriculture-a-proactive-approach-to-farm-sanitation-and-disease-prevention%2F%3Fv%3Da25496ebf095&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8
, https://nutrihydro.com/hydrogen-peroxide-in-agriculture-a-proactive-approach-to-farm-sanitation-and-disease-prevention/?v=a25496ebf095 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnutrihydro.com%2Fhydrogen-peroxide-in-agriculture-a-proactive-approach-to-farm-sanitation-and-disease-prevention%2F%3Fv%3Da25496ebf095&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8
    * This is not a hydrogen peroxide study, but electrolyzed water is another effective approach: Reduction of microbial contamination on the surfaces of layer [chicken] houses using slightly acidic electrolyzed water <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubmed.ncbi.nlm.nih.gov%2F263
, https://pubmed.ncbi.nlm.nih.gov/26371328/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubmed.ncbi.nlm.nih.gov%2F263
* Would your office be willing to explore this approach further and disseminate the information to farmers and ranchers?

It's very important that we all help to prevent the spread of fear as well as the spread of infection. These simple and readily-available solutions can go a long way in fulfilling these objectives. I appreciate your time and efforts on this consequential matter.

Sincerely,

Lisa Templeton

Informed Choice Washington Director

InformedChoiceWA.org

1. UConn Health Researchers Find a Simple Oral Rinse Can Inactivate the COVID-19 Virus <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https health-researchers-find-simple-oral-rinse-can-inactivate-covid-19-virus%2F*__%3BIw!!PRtDf9A!pcNxthqswetCvhQIUMNc9WTY6h7bbtE2P7YNEr3r4UrrZr3QaC3Q29szyUhWyL , https://today.uconn.edu/2020/06/uconn-health-researchers-find-simple-oral-rinse-can-inactivate-covid-19-virus/# <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Ftoday.uconn.edu%2F2020%2F06% health-researchers-find-simple-oral-rinse-can-inactivate-covid-19-virus%2F&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8c4a54bd0c08dd2c35b4a6%7C

2. Can povidone iodine gargle/mouthrinse decrease the risk of transmission? <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https https://pubmed.ncbi.nlm.nih.gov/33747261/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubmed.ncbi.nlm.nih.gov%2F337

3. Comparison of In Vitro Inactivation of SARS CoV□2 with Hydrogen Peroxide and Povidone□Iodine Oral Antiseptic Rinses <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https , https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361576/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpmc%2

4. How to Make the Povidone Iodine Solution from the I-CARE FLCCC Protocol - Video Tutorial, https://covid19criticalcare.com/tools-and-guides/how-to-make-the-povidone-iodine-solution-from-the-i-care-protocol/ <file:///C:/Users/glena/OneDrive/ICWA/Public%20Health/How%20to%20Make%20the%20Povidone%20Io CARE%20FLCCC%20Protocol%20-%20Video%20Tutorial,%20https:/covid19criticalcare.com/tools-and-guides/how-to-make-the-povidone-iodine-solution-from-the-i-care-protocol/>

5. Known effective since 1977 at the latest Virus inactivation by hydrogen peroxide <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https , https://pubmed.ncbi.nlm.nih.gov/203115/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubmed.ncbi.nlm.nih.gov%2F203

6. Comparison of In Vitro Inactivation of SARS CoV□2 with Hydrogen Peroxide and Povidone□Iodine Oral Antiseptic Rinses <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https , https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361576/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpmc%2

7. Expert Panel Discussion: Hydrogen peroxide in the prevention of Covid-19 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https 69e9-4023-a2a8-0c31e72af047__%3B!!PRtDf9A!pcNxthqswetCvhQIUMNc9WTY6h7bbtE2P7YNEr3r4UrrZr3QaC3Q29szyUhWy

, https://www.brighteon.com/76f0c65b-69e9-4023-a2a8-0c31e72af047
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.brighteon.com%2F76f0c65b
69e9-4023-a2a8-
0c31e72af047&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8c4a54bd0c08dd2c35b4a6

8. Hospital Study Shows that Covid-19 Can be Prevented with Hydrogen Peroxide
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__http
, https://www.orthomolecular.org/resources/omns/v18n18.shtml
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.orthomolecular.org%2Fresou

9. Hydrogen Peroxide Nebulization and COVID Resolution
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.orthomolecular.org%2Fresou
, https://www.orthomolecular.org/resources/omns/v17n13.shtml
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.orthomolecular.org%2Fresou

10. Virucidal Efficacy of Different Oral Rinses Against Severe Acute Respiratory Syndrome Coronavirus 2
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://academic.oup.com/jid/article/222/8/1289/5878067?login=true
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Facademic.oup.com%2Fjid%2Farti

11. Curing Viruses with [Nebulized] Hydrogen Peroxide: Can a simple therapy stop the pandemic?
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Forthomolecular.org%2Fresources%
https://orthomolecular.org/resources/omns/v16n43.shtml
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Forthomolecular.org%2Fresources%

12. Protocol for Hydrogen Peroxide Mouth Wash and Nasal Cleanse
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Flatitudes.org%2Fprotocol-for-hydrogen-peroxide-mouthwash-and-nasal-cleanse%2F&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8c4a54bd0c08dd2c35b4a6%
, https://latitudes.org/protocol-for-hydrogen-peroxide-mouthwash-and-nasal-cleanse/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Flatitudes.org%2Fprotocol-for-hydrogen-peroxide-mouthwash-and-nasal-cleanse%2F&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8c4a54bd0c08dd2c35b4a6%

13. In Vitro Analysis of the Anti-viral Potential of nasal spray constituents against SARS-CoV-2
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://www.biorxiv.org/content/10.1101/2020.12.02.408575v3.full
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.biorxiv.org%2Fcontent%2F1

14. Inhibitory effect of grapefruit seed extract (GSE) on avian pathogen
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
unc%24&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cadd9c278ca8c4a54bd0c08dd2c35b4a6%7C1
, https://pubmed.ncbi.nlm.nih.gov/30713281/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubmed.ncbi.nlm.nih.gov%2F307

15. Grapefruit Seed Extract as a Natural Derived Antibacterial Substance against Multidrug-Resistant Bacteria
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://pubmed.ncbi.nlm.nih.gov/33477436/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubmed.ncbi.nlm.nih.gov%2F334

16. An updated and comprehensive review of the antiviral potential of essential oils and their chemical constituents with special focus on their mechanism of action against various influenza and coronaviruses
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https

, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9159739/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpmc%2

17. Virucidal Activity of Different Mouthwashes Using a Novel Biochemical Assay
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8775226/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpmc%2

18. Virucidal Efficacy of Different Oral Rinses Against Severe Acute Respiratory Syndrome Coronavirus 2
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7454736/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpmc%2

19. A pilot, open labelled, randomised controlled trial of hypertonic saline nasal irrigation and gargling for the common cold
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6355924/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpmc%2

20. Do saline water gargling and nasal irrigation confer protection against COVID-19?
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7528968/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpmc%2

21. Saline nasal irrigation and gargling in COVID-19: a multidisciplinary review of effects on viral load, mucosal dynamics, and patient outcomes
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
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<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https

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From: Kamali, Andrew R (SBOH)
Sent: 11/20/2024 1:10:44 PM
To: DOH WSBOH
Cc:
Subject: FW: WSSDA Response to School Health and Safety Environmental Rulemaking


attachments\953212AA713C48C8_image001.png


attachments\24CCCEAE988B4938_image002.png

Andrew Kamali (he/him)

School Rules Project Manager

Washington State Board of Health

andrew.kamali@sboh.wa.gov <mailto:andrew.kamali@sboh.wa.gov>

360-584-6737

Website
<https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fsboh.wa.gov%2F&data=05%7C02
|Facebook
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.facebook.com%2FWASBOH
|Twitter
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Ftwitter.com%2FWASBOH&data=0

From: Rathbone, Marissa (WSSDA) <M.Rathbone@wssda.org>
Sent: Wednesday, November 20, 2024 12:38 PM
To: DOH WSBOH School Environmental Health & Safety Project
<schoolehs@sboh.wa.gov>
Cc: Lubach, Tricia (WSSDA) <T.Lubach@wssda.org>; Sandy Hayes (sbdistrict4@nsd.org)
<sbdistrict4@nsd.org>; Derek Sarley <dsarley@wwps.org>; Geary, Christine (WSSDA)
<c.geary@wssda.org>; Lindsay Lofstrom <lindsay.lofstrom@dpsdmail.org>;
melissa.beard@tumwater.k12.wa.us; Kamali, Andrew R (SBOH)
<Andrew.Kamali@sboh.wa.gov>
Subject: WSSDA Response to School Health and Safety Environmental Rulemaking

Dear Members of the Washington State Board of Health,

My name is Marissa Rathbone, and I am the Director of Advocacy for the Washington

State School Directors' Association, representing the 1,477 locally elected school directors from across the state. Thank you for inviting us to share remarks at the Technical Advisory Committee meeting in Spokane this morning. We appreciated having the opportunity (and invitation) to share ways to make learning environments safer, healthier, and more effective for learning and teaching.

Earlier in my career, I studied to be a Health Education Teacher and I come from a line of public educators. This background motivates me to uplift the importance of healthy school environments as the foundation for learning. Our school directors across the state also understand that the health and safety of students and staff is paramount to secure successful academic outcomes.

At the local level, boards approve district budgets that align with state laws while working to fulfill a moral and ethical responsibility to keep students and staff safe and well. In fact, school districts have determined on their own and without state funding to make many of the proactive or responsive environmental changes without new rules or laws. Additionally, school board governance requires that state and federal laws be followed. Often, however, the resources to implement those requirements are not allocated by policymakers. Therefore, difficult decisions must be made that impact students, families, staff, and communities. When there are not enough dollars allocated to implement requirements, the board is put in the most difficult position to make cuts, such as closing schools. And no one wants to be in that position.

In local elections this year, voters rejected most of the bonds and many of the levies on their local ballots. When bonds consistently fail in a district, new buildings cannot replace those in disrepair, and an effort to simply replace heating/cooling systems, failing roofs, and windows are prioritized through levies. This puts the financial responsibility on the districts to ensure the literal foundation for learning is in place before learning can occur. Although the state courts recently decided that school facilities are not part of basic education, we should all consider roofs and windows pretty basic.

As you continue to hear about the important health and safety considerations for the K-12 environment, we ask that the cost implications be considered, and their funding ensured, before codifying. We simply cannot support any good idea that isn't sufficiently funded - because any more unfunded requirements could ultimately shutter our schools.

As the legislature considers your recommendations, please emphasize the importance of local flexibility, proactive funding, simple majority for school bonds, and a flexible timeline. If any policy is important, the right timeline and resources to implement them should be too. A locally developed plan with state funding and flexibility to implement is our overall recommendation.

Please let us know as you have questions and opportunities to partner, learn, and advocate together.

Respectfully,

Marissa Rathbone
Director of Strategic Advocacy

Prosci Change Practitioner
Washington State School Directors' Association
(360) 742-4435 | m.rathbone@wssda.org <mailto:m.rathbone@wssda.org> | wssda.org
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwssda.org%2F&data=05%7C02%

_____

From: Bob Runnells
Sent: 1/3/2025 10:53:46 AM
To: DOH WSBOH
Cc:
Subject: Public Comments for Jan 8 2025 WSBOH meeting

attachments\5F7C2BE051764CA4_rhodes-parry-2024-pharmaceutical-_PRDTOOL_NAMETOOLONG.pdf

External Email

Dear Washington State Board of Health members,

In the International Journal of Risk & Safety in Medicine, a recent article was published titled "Pharmaceutical product recall and educated hesitancy towards new drugs and novel vaccines" that I think the Board should be aware of. Please read attached where it compares the number of death reports for historical drugs or vaccines that were subsequently withdrawn from the market.

The authors summarize their results as "Parallels with past drug withdrawals and gene-based vaccines include distortion of clinical trial data, with critical adverse event data absent from high-impact journal publications. Delayed regulatory action on pharmacovigilance data to trigger market withdrawal occurred with Vioxx (rofecoxib) and is apparent with the gene-based COVID-19 vaccines."

Therefore, the Washington State Board of Health would be justified in withdrawing their recommendations for the COVID-19 shots as the benefits continue to be outweighed by the risks.

Thank you,

Bob Runnells

Informed Choice Washington

From: Garry Blankenship
Sent: 11/19/2024 10:00:57 AM
To: ombuds@oc.fda.gov,hcinfo.infosc@canada.ca,DOH WSBOH,OADS@cdc.gov,sheriff@co.clallam.wa.us,Berry, Allison 2 (DOHi),shahidafatin@gmail.com,ncarr@cityofpa.us,gbsjrmd@sisna.com,Mark.Ozias@ClallamCountyWA.gov Herald, (DOHi),chutton@heraldnet.com,customerservice@theolympian.com,news@spokesman.com,voice@spokesm City Herald (DOHi),Chapman, Mike (LEG),Tharinger, Steve,Van De Wege, Kevin
Cc:
Subject: Fwd: BREAKING NEWS - Twice-Censored Landmark COVID-19 Vaccine Autopsy Study Fully Peer-Reviewed and Published

External Email

Good Day,

Below is yet more data among the inevitable landslide of information escaping main stream media, captured medical institutions and Federal censorship. The promotion of the COVID "vaccines" and associated penalties was and remains a catastrophic mistake. In the interest of starting small I implore all influencers to at a minimum halt the injection of our children with these experimental, unsafe and ineffective toxins. Adults are legally capable of informed consent; children are not. Lisa Domski was recently awarded $ 12.6 million from Blue Cross / Blue Shield for wrongful termination because she did not COVID "vaccinate". I reveal that not as a threat, but as a plea to not only reconsider our vaccination policy, but to also publicly show contrition for all the harms which include death associated with "vaccine" restrictions, harms and mandates.

Sincerely,

Garry Blankenship
Concerned Sequim Citizen

<https://eotrx.substackcdn.com/open?token=eyJtIjoiPDIwMjQxMTE4MjE1NzU4LjMuM2JhYjc2Zjg5MTI1YTlm

This paper has now passed TWO rounds of peer review in TWO different journals.

Conclusion: They looked at 240 deaths happening after vaccination. 74% were due to or significantly contributed to by COVID-19 vaccination.

If the vaccines is safe and effective, this is impossible to explain. The medical community should be castigated for missing such an obvious safety signal that should have been picked up early had the CDC seriously looked at any autopsy reports. With the re-publication, this should be impossible for the medical community to explain.

Ask your doctor to explain how a safe vaccine can cause 73% of the deaths that were investigated post-vaccine.

BREAKING NEWS - Twice-Censored Landmark COVID-19 Vaccine Autopsy Study Fully Peer-Reviewed and Published
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fapp-link%2Fpost%3Fpublication_id%3D1119676%26post_id%3D151281405%26utm_source%3Dcross-post%26utm_campaign%3D548354%26isFreemail%3Dfalse%26r%3D15ift6%26token%3DeyJ1c2VyX2lkIj
bTgs&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C65bbedb499914492b3ec08dd08c41a02%7C11d0e2

After enduring relentless censorship, our systematic review linking COVID-19 vaccines to death is now available for the entire world to read.

Nicolas Hulscher, MPH
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2F%40nichulscher

Nov 18

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2F%40nichulscher

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fapp-link%2Fpost%3Fpublication_id%3D1119676%26post_id%3D151281405%26utm_source%3Dsubstack%26
reaction%26r%3D15ift6&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C65bbedb499914492b3ec08dd08

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fapp-link%2Fpost%3Fpublication_id%3D1119676%26post_id%3D151281405%26utm_source%3Dsubstack%26
bTgs%26r%3D15ift6%26utm_campaign%3Demail-half-magic-comments%26action%3Dpost-comment%26utm_source%3Dsubstack%26utm_medium%3Demail&data=05%7C02%7Cwsboh%40sboh.w

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fapp-link%2Fpost%3Fpublication_id%3D1119676%26post_id%3D151281405%26utm_source%3Dsubstack%26share%26action%3Dshare%26triggerShare%3Dtrue%26isFreemail%3Dfalse%26r%3D15ift6%26token%3D bTgs&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C65bbedb499914492b3ec08dd08c41a02%7C11d0e2

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by Nicolas Hulscher, MPH

The largest COVID-19 vaccine autopsy study to-date, providing robust evidence that COVID-19 vaccines can cause death, has been officially republished following successful peer-review in the journal Science, Public Health Policy, and the Law: A Systematic Review Of Autopsy Findings In Deaths After COVID-19 Vaccination <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F474 5dcc-4094-9b12-b5f5fab58ca9%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=05 . This comes after unethical censorship on two occasions: first, removal from <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F74d fad8-4d13-b8d4-5d33d614b5b6%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0 Preprints with the Lancet <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F74d fad8-4d13-b8d4-5d33d614b5b6%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0 and later, withdrawal by Elsevier <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F68d d333-4282-b64c-043f9fede4a7%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=05 after publication in Forensic Science International.

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F31b cc6d-40a1-b946-

30e466d5a164%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0

Hulscher N, Alexander P E., Amerling R, Gessling H, Hodkinson R, Makis W et al. A Systematic Review Of Autopsy Findings In Deaths After COVID-19 Vaccination. Science, Public Health Policy and the Law. 2024 Nov 17; v5.2019-2024

Here's what we found:

Background: The rapid development of COVID-19 vaccines, combined with a high number of adverse event reports, have led to concerns over possible mechanisms of injury including systemic lipid nanoparticle (LNP) and mRNA distribution, Spike protein-associated tissue damage, thrombogenicity, immune system dysfunction, and carcinogenicity. The aim of this systematic review is to investigate possible causal links between COVID-19 vaccine administration and death using autopsies and post-mortem analysis.

Methods: We searched PubMed and ScienceDirect for all published autopsy and organ-restricted autopsy reports relating to COVID-19 vaccination up until May 18th, 2023. All autopsy and organ-restricted autopsy studies that included COVID-19 vaccination as an antecedent exposure were included. Because the state of knowledge has advanced since the time of the original publications, three physicians independently reviewed each case and adjudicated whether or not COVID-19 vaccination was the direct cause or contributed significantly to death.

Results: We initially identified 678 studies and, after screening for our inclusion criteria, included 44 papers that contained 325 autopsy cases and one organ-restricted autopsy case (heart). The mean age of death was 70.4 years. The most implicated organ system among cases was the cardiovascular (49%), followed by hematological (17%), respiratory (11%), and multiple organ systems (7%). Three or more organ systems were affected in 21 cases. The mean time from vaccination to death was 14.3 days. Most deaths occurred within a week from last vaccine administration. A total of 240 deaths (73.9%) were independently adjudicated as directly due to or significantly contributed to by COVID-19 vaccination, of which the primary causes of death include sudden cardiac death (35%), pulmonary embolism (12.5%), myocardial infarction (12%), VITT (7.9%), myocarditis (7.1%), multisystem inflammatory syndrome (4.6%), and cerebral hemorrhage (3.8%).

Conclusions: The consistency seen among cases in this review with known COVID-19 vaccine mechanisms of injury and death, coupled with autopsy confirmation by physician adjudication, suggests there is a high likelihood of a causal link between COVID-19 vaccines and death. Further urgent investigation is required for the purpose of clarifying our findings.

Our study indicates that the COVID-19 injectable products must undergo an immediate Class I recall by the FDA to protect public safety. The U.S. Food and Drug Administration defines a <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F8a3
00fe-437f-95bb-
c3c03b55feb5%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
Class I recall <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F8a3
00fe-437f-95bb-
c3c03b55feb5%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
as: "A situation in which there is a reasonable probability that the use of or exposure to a

violative product will cause serious adverse health consequences or death.”

The censorship and retraction of studies that show COVID-19 mRNA injection harms is deeply concerning. First, this study was inappropriately removed from Preprints with the Lancet (SSRN) <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F115
e493-4b5a-b614-
1abc7c0dd0a6%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
. The paper was posted on the server on July 5th, 2023 and censored in less than 24 hours after receiving massive numbers of downloads and reads, "because the study's conclusions are not supported by the study methodology." However, the study initially satisfied SSRN screening criteria, which raises grave suspicions of censorship.

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2Fdcc
4182-4289-a469-
54333650e42a%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0

Then began the long process of submitting critical COVID-19 vaccine autopsy data to nearly 20 publications, facing repeated rejections without peer-review:

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F483
e90b-4bc1-aeb3-
07c9e26ccb76%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0

Approximately a year after our study was wiped from Preprints with the Lancet, on June 21st, 2024, the paper was published after successful peer-review in <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2Fa27
a2ca-4a3a-9e60-
42e88111b61f%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
Forensic Science International
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2Fa27
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42e88111b61f%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
:

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F1b2
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3bbb211e53ca%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0

On July 3rd, 2024, our study was the #1 trending research paper worldwide across all subject areas within the last 2 weeks according to the Observatory of International Research <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F4da
fdac-4f1a-b0b1-
71dc7597bdd6%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
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<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F9b0
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f20280c123ca%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0

Thus, we can assume that scientists, physicians, and the public were eager to learn about critical post-mortem safety data regarding COVID-19 injections. Unfortunately, in a striking act of censorship, Elsevier and Forensic Science International withdrew the article on August 2nd, 2024 in flagrant violation of their own withdrawal policy <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F519
3778-4232-91f4-
89e36b86caab%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
and COPE guidelines <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2Fd5e
b460-4577-9cb8-
29228a317f29%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
. They left no traces behind, completely wiping our paper from the webpage.

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2Fb19
2e50-48db-b4c4-
e4d1cd0be396%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0

Anonymous ‘members of the scientific community' declared that our study should not be published. A comprehensive rebuttal against the unfounded concerns was provided to the journal, which was concerningly rejected in accordance with two anonymous post-publication reviewers. Elsevier and Forensic Science International failed to follow the proper scientific discourse method of allowing debate in Letters to the Editor. This type of academic censorship poses a serious threat to the progress of scientific discovery. The republication of our autopsy study marks a significant setback for the Biopharmaceutical Complex and their Academic Publishing Cartel

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F2f9
be4f-447e-b5c1-
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, signaling a pivotal victory for transparency and accountability in science.

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F920
2e10-4d3b-9fe9-
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Nicolas Hulscher, MPH

Epidemiologist and Foundation Administrator, McCullough Foundation

www.mcculloughfnd.org

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3531d7b6ef2b%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
and Nicolas Hulscher
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F4b6
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65b16b6ee979%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=0
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share%26action%3Dshare%26triggerShare%3Dtrue%26isFreemail%3Dfalse%26r%3D15ift6%26token%3D
bTgs&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C65bbedb499914492b3ec08dd08c41a02%7C11d0e21

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link%2Fpost%3Fpublication_id%3D1119676%26post_id%3D151281405%26utm_source%3Dsubstack%26
reaction%26r%3D15ift6&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C65bbedb499914492b3ec08dd08c

Comment
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fapp-link%2Fpost%3Fpublication_id%3D1119676%26post_id%3D151281405%26utm_source%3Dsubstack%26bTgs%26r%3D15ift6%26utm_campaign%3Demail-half-magic-comments%26action%3Dpost-comment%26utm_source%3Dsubstack%26utm_medium%3Demail&data=05%7C02%7Cwsboh%40sboh.w

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Courageous Discourse™ with Dr. Peter McCullough & John Leake
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F494b4ac-4185-8063-f8ed5fe988ca%3Fj%3DeyJ1IjoiMTVpZnQ2In0.PoWkYg8wHoPi84O6BbnZ2dl3zAYJI3AKz0ikcuhTjA4&data=05
Peter A. McCullough, MD, MPH
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Advancement of clinical science, protection of personal autonomy, liberty, and constitutional rights.

<https://eotrx.substackcdn.com/open?token=eyJtIjoiPDIwMjQxMTE4MjE1NzU4LjMuM2JhYjc2Zjg5MTI1YTlm

<https://email.mg1.substack.com/o/eJxMkEuu8yAMRldzGUYxj5IMWEtkjEnRLVDxqJTd_8rfyZ2eIx9ZH-
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8G9qnZ5ifEebndudeexWamO0-Dj5LwAA__9AxHG1>

_____
From: 2
Sent: 11/14/2024 11:19:19 AM
To: DOH WSBOH
Cc:
Subject: Why can't Washington do this

attachments\3FBDDBE628FF4EA1_GcUDmHXXkAA6ld_.jpg

External Email

From: DOH WSBOH School Environmental Health & Safety Project
Sent: 11/14/2024 1:37:57 PM
To: DOH WSBOH
Cc:
Subject: FW: Please support the revision and update of Environmental Health and Safety Standards for Primary and Secondary Schools

attachments\471BEBD083A34DE6_Letter of Support School Rule Revision_Ver2.pdf

attachments\5AC864096D054EB2_image001.png

attachments\4373951FB3264838_image002.png

Andrew Kamali (he/him)

School Rules Project Manager

Washington State Board of Health

andrew.kamali@sboh.wa.gov <mailto:andrew.kamali@sboh.wa.gov>

360-584-6737

Website
<https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fsboh.wa.gov%2F&data=05%7C02%
|Facebook
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.facebook.com%2FWASBOH%
|Twitter
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Ftwitter.com%2FWASBOH&data=0

From: Jessica Gehle <JGehle@tpchd.org>
Sent: Thursday, November 14, 2024 12:49 PM
To: DOH WSBOH School Environmental Health & Safety Project <schoolehs@sboh.wa.gov>
Cc: Reed, Chantell (DOHi) <creed@tpchd.org>; Pat Darden <PDarden@tpchd.org>
Subject: Please support the revision and update of Environmental Health and Safety Standards for Primary and Secondary Schools

External Email

Dear Washington State Board of Health:

Please see the attached letter of support for revision and update of Environmental Health and Safety Standards for Primary and Secondary Schools.

Thank you,

Jessica

Jessica Gehle, MPH (she/her)

Division Director

Environmental Health

(253) 649-1845 o • (253) 370-6163 c

jgehle@tpchd.org <mailto:jgehle@tpchd.org>

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| X
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| YouTube
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.youtube.com%2Fchannel%2

Nov. 13, 2024

Dear Washington State Board of Health:

Please support the revision and update of Environmental Health and Safety Standards for Primary and Secondary Schools.

Local Health Jurisdictions (LHJs) and schools currently rely on outdated rules to protect the health and safety of our students. By the time a student graduates from high school, they will spend on average more than 14,000 hours in school. It's imperative we ensure learning environments are safe, healthy, and improve health equity.

Current rules fall short on tackling important environmental factors like:

- Indoor air quality.
- Temperature control.
- Playground safety.
- Safety in career and technical education classrooms.

As wildfires and extreme heat become more frequent, schools must be adequately equipped to protect student health. Environmental Protection Agency's research shows exposure to climate stressors can have lifelong consequences to children's health and development. It can disproportionately harm children who are Black, Indigenous, Hispanic or Latino, or reside in low-income families, or are underinsured.

LHJs and schools need modern guidelines to assess, inspect, and address environmental health and safety risks. Rule revision and updates will enable local inspectors and schools to promote environments where students can thrive.

I appreciate your support of environmental health and safety in Washington schools. Please support the revision and funding for rule implementation.

Sincerely,

Chantell Harmon Reed, MS-HCM, Doula
Director of Public Health

Chantell Harmon Reed, MS-HCM, Doula
Director of Public Health
James S. Miller, MD, MPH
Health Officer

3629 S. D St. • Tacoma, WA 98418-6813
tpchd.org • (253) 649-1500
(800) 330-1844 • TDD (253) 649-1400

From: Garry Blankenship
Sent: 12/14/2024 9:01:28 AM
To: hcinfo.infosc@canada.ca,DOH WSBOH,Berry, Allison 2
(DOHi),shahidafatin@gmail.com,ncarr@cityofpa.us,gbsjrmd@sisna.com,Mark.Ozias@ClallamCountyWA.gov
Herald,
(DOHi),chutton@heraldnet.com,customerservice@theolympian.com,news@spokesman.com,voice@spokesm
City Herald (DOHi)
Cc:
Subject: Fwd: Vaccine "Effectiveness" Graphs

External Email

An effort to support informed consent.

---------- Original Message ----------
From: KC from KC’s COVID Facts <ladycasey@substack.com>
To: hisgarness@comcast.net
Date: 12/14/2024 6:38 AM PST
Subject: Vaccine "Effectiveness" Graphs

<https://eotrx.substackcdn.com/open?token=eyJtIjoiPDIwMjQxMjE0MTQzODQzLjMuMmYyMDg5MDFmYjZk

Showing plummeting rates of disease long before vaccines were ever introduced

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Showing plummeting rates of disease long before vaccines were ever introduced

KC
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2F%40ladycasey&

Dec 14

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reaction%26r%3D15ift6&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Cf3f960f98b0b4f0af5ea08dd1c60f

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<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F971
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And a couple more graphics to drive home the point:

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F985
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I will post more images as I come across them. Please feel free to share widely, especially on social media to combat the "vaccines save lives" rhetoric (which rarely includes any evidence, science, or valid graphs whatsoever).

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link%2Fpost%3Fpublication_id%3D1216460%26post_id%3D153121484%26utm_source%3Dsubstack%26
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Comment

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3jU7trizPFcw8G_Gx8BMAAP__PRpxVA>

_____

From: lisa@informedchoicewa.org
Sent: 1/3/2025 10:59:57 AM
To: DOH WSBOH
Subject: for BOH packet for its January 8 meeting?prevent both fear and infection

External Email

Dear Board of Health members,

I have cc'ed our state veterinarian, Dr. Amber Itle, as well as the chairs of our Senate and House health and agriculture committees. The following is a message similar to one I sent in August. I have not received a reply from the parties I copied at that time.

Now that California has declared an emergency regarding avian flu (https://www.gov.ca.gov/2024/12/18/governor-newsom-takes-proactive-action-to-strengthen-robust-state-response-to-bird-flu/)--<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.gov.ca.gov%2F2024%2F12%
newsom-takes-proactive-action-to-strengthen-robust-state-response-to-bird-flu%2F&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Cd55350238b624310e17508dd2c2814a8%7C11d0
in the absence of a single case of human-to-human transmission worldwide (https://www.cdc.gov/bird-flu/situation-summary/inhumans.html <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.cdc.gov%2Fbird-flu%2Fsituation-summary%2Finhumans.html&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Cd55350238b624310e17508
)--it is critical for our state to use available tools to empower citizens and farmers to protect themselves and their animals—all without creating an atmosphere of fear.

Hydrogen peroxide (H2O2) has been well-studied for use with animals, as well as humans, and has been shown to deactivate bird flu viruses. Solutions of hydrogen peroxide can be safely misted in coops and barns, directly on animals and eggs. Likewise, people of all ages can utilize this and other inexpensive antiviral substances via nasal rinse and gargling to prevent and stop upper respiratory infection. Please see the 21 studies linked below.

I can't stress enough how important it is that Washington State agencies embrace and educate the public on the benefits of oral and throat hygiene. Iodine solutions can inactivate any virus in 15 seconds, H2O2 in less than 30 seconds, and essential oils in under a minute. These substances can kill bacteria, too. These are not controversial prevention strategies; they are well-established to be safe and effective. Adding these tools to the public health toolbox could drastically prevent infection, reduce transmission, and lower incidence of severe infection.

Wouldn't it be exemplary if Washington took the lead on promoting this practice, and we ended up with the lowest respiratory infection rates in the nation? Public health policies take time to disseminate, of course, but the DOH has a vast network and the ability to communicate with healthcare providers and the public with a simple push of the "send"

button for emails, social media, press releases, even texts. Information about nasal spray/rinse and gargling could be including in the DOH's existing workflow.

The messaging could be included wherever handwashing is mentioned in regards to helping prevent the spread of respiratory infection. The supporting science spans decades, and the studies during COVID provide even more evidence. This education outreach doesn't need to recommend any specific OTC products. Just as DOH doesn't tell people what specific type or brand of soap to use, neither would they have to say what specific type or brand of nasal or gargling product to use. They could simply explain the basics, the ingredients studied (saline, iodine, H2O2, essential oils, grapefruit seed extract, etc.), and use standard language of "see your healthcare provider" and "use as directed."

I do believe we can easily do this!

Questions for Dr. Itle:

* Are you already aware of the many H2O2 studies and animal applications for preventing the spread of infection? Examples:
    * Hydrogen Peroxide in Agriculture: A Proactive Approach to Farm Sanitation and Disease Prevention <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnutrihydro.com%2Fhydrogen-peroxide-in-agriculture-a-proactive-approach-to-farm-sanitation-and-disease-prevention%2F%3Fv%3Da25496ebf095&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Cd55350238b624
, https://nutrihydro.com/hydrogen-peroxide-in-agriculture-a-proactive-approach-to-farm-sanitation-and-disease-prevention/?v=a25496ebf095
    * This is not a hydrogen peroxide study, but electrolyzed water is another effective approach: Reduction of microbial contamination on the surfaces of layer [chicken] houses using slightly acidic electrolyzed water <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubmed.ncbi.nlm.nih.gov%2F263
, https://pubmed.ncbi.nlm.nih.gov/26371328/

* Would your office be willing to explore this approach further and disseminate the information to farmers and ranchers?

It's very important that we all help to prevent the spread of fear as well as the spread of infection. These simple and readily-available solutions can go a long way in fulfilling these objectives. I appreciate your time and efforts on this consequential matter.

Sincerely,

Lisa Templeton

Informed Choice Washington Director

InformedChoiceWA.org

1. UConn Health Researchers Find a Simple Oral Rinse Can Inactivate the COVID-19 Virus <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https health-researchers-find-simple-oral-rinse-can-inactivate-covid-19-virus%2F*__%3BIw!!PRtDf9A!pcNxthqswetCvhQIUMNc9WTY6h7bbtE2P7YNEr3r4UrrZr3QaC3Q29szyUhWyL , https://today.uconn.edu/2020/06/uconn-health-researchers-find-simple-oral-rinse-can-inactivate-covid-19-virus/#
2. Can povidone iodine gargle/mouthrinse decrease the risk of transmission? <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https https://pubmed.ncbi.nlm.nih.gov/33747261/
3. Comparison of In Vitro Inactivation of SARS CoV□2 with Hydrogen Peroxide and Povidone□Iodine Oral Antiseptic Rinses <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https , https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361576/
4. How to Make the Povidone Iodine Solution from the I-CARE FLCCC Protocol - Video Tutorial, https://covid19criticalcare.com/tools-and-guides/how-to-make-the-povidone-iodine-solution-from-the-i-care-protocol/ <file:///C:/Users/glena/OneDrive/ICWA/Public%20Health/How%20to%20Make%20the%20Povidone%20Io CARE%20FLCCC%20Protocol%20-%20Video%20Tutorial,%20https:/covid19criticalcare.com/tools-and-guides/how-to-make-the-povidone-iodine-solution-from-the-i-care-protocol/>
5. Known effective since 1977 at the latest Virus inactivation by hydrogen peroxide <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https , https://pubmed.ncbi.nlm.nih.gov/203115/
6. Comparison of In Vitro Inactivation of SARS CoV□2 with Hydrogen Peroxide and Povidone□Iodine Oral Antiseptic Rinses <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https , https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361576/
7. Expert Panel Discussion: Hydrogen peroxide in the prevention of Covid-19 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https 69e9-4023-a2a8-0c31e72af047__%3B!!PRtDf9A!pcNxthqswetCvhQIUMNc9WTY6h7bbtE2P7YNEr3r4UrrZr3QaC3Q29szyUhWy , https://www.brighteon.com/76f0c65b-69e9-4023-a2a8-0c31e72af047
8. Hospital Study Shows that Covid-19 Can be Prevented with Hydrogen Peroxide <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__http , https://www.orthomolecular.org/resources/omns/v18n18.shtml
9. Hydrogen Peroxide Nebulization and COVID Resolution <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.orthomolecular.org%2Fresou , https://www.orthomolecular.org/resources/omns/v17n13.shtml
10. Virucidal Efficacy of Different Oral Rinses Against Severe Acute Respiratory Syndrome Coronavirus 2 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https , https://academic.oup.com/jid/article/222/8/1289/5878067?login=true
11. Curing Viruses with [Nebulized] Hydrogen Peroxide: Can a simple therapy stop the pandemic? <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Forthomolecular.org%2Fresources% https://orthomolecular.org/resources/omns/v16n43.shtml
12. Protocol for Hydrogen Peroxide Mouth Wash and Nasal Cleanse <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Flatitudes.org%2Fprotocol-for-hydrogen-peroxide-mouthwash-and-nasal-cleanse%2F&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Cd55350238b624310e17508dd2c2814a8%7C , https://latitudes.org/protocol-for-hydrogen-peroxide-mouthwash-and-nasal-cleanse/

13. In Vitro Analysis of the Anti-viral Potential of nasal spray constituents against SARS-CoV-2 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://www.biorxiv.org/content/10.1101/2020.12.02.408575v3.full
14. Inhibitory effect of grapefruit seed extract (GSE) on avian pathogen <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
unc%24&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Cd55350238b624310e17508dd2c2814a8%7C11d
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15. Grapefruit Seed Extract as a Natural Derived Antibacterial Substance against Multidrug-Resistant Bacteria <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
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16. An updated and comprehensive review of the antiviral potential of essential oils and their chemical constituents with special focus on their mechanism of action against various influenza and coronaviruses <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9159739/
17. Virucidal Activity of Different Mouthwashes Using a Novel Biochemical Assay <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
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18. Virucidal Efficacy of Different Oral Rinses Against Severe Acute Respiratory Syndrome Coronavirus 2 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7454736/
19. A pilot, open labelled, randomised controlled trial of hypertonic saline nasal irrigation and gargling for the common cold <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6355924/
20. Do saline water gargling and nasal irrigation confer protection against COVID-19? <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7528968/
21. Saline nasal irrigation and gargling in COVID-19: a multidisciplinary review of effects on viral load, mucosal dynamics, and patient outcomes <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Furldefense.com%2Fv3%2F__https
,
https://urldefense.com/v3/__https:/www.ncbi.nlm.nih.gov/pmc/articles/PMC10312243/__;!!PRtDf9A!pcNx

From: Garry Blankenship
Sent: 12/2/2024 8:24:52 AM
To: Van De Wege, Kevin,Chapman, Mike (LEG),DOH
WSBOH,sheriff@co.clallam.wa.us,mozias@co.clallam.wa.us,rjohnson@co.clallam.wa.us,shahidafatin@gmail
Allison 2 (DOHi)
Cc:
Subject: COVID Vaccines Accurately Summarized

External Email

https://brownstone.org/articles/the-vaccine-paradox/

From: Jim Sledge
Sent: 1/3/2025 12:13:27 PM
To: DOH WSBOH
Cc:
Subject: My Public Comments

External Email

The FDA doesn't have jurisdiction over drinking water so this change is designed to subvert the authority of the EPA which does have jurisdiction. Please refrain from approving this Trojan Horse attempt to remove fluoride from our drinking water!
James N Sledge,DDS, FACD

From: Greg Howard
Sent: 11/19/2024 11:43:18 AM
To: DOH WSBOH
Subject: Public comment re: ventilation (School Environmental Health and Safety Rule Project Technical Advisory Committee)

External Email

Members of the Board,

I'm a parent in the Lake Washington School District advocating for cleaner air in our schools on behalf of my high-risk child and our vulnerable family members. I've been following the TAC meetings would like to add a parent perspective to this conversation (informed by my conversations with clean air experts) especially because the recommendation taking shape seems to fall well short of what our peer "air quality aware" states are enacting, with the inevitable result of higher absenteeism due to illness. While better than the 10 CFM/person specified in WAC 51-52-0403, a minimum total ventilation rate of 21 CFM/person applying only to new schools means the vast majority of Washington kids and teachers won't benefit for years. Contrast with the California Department of Public Health guidance <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.cdph.ca.gov%2FPrograms%
19%2FCOVID-19-and-Improving-Indoor-Air-Quality-in-
Schools.aspx&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C1
:

To prevent the spread of respiratory infections and decrease absenteeism, CDPH recommends providing a minimum of at least 5 air changes per hour or 30 cfm/occupant of equivalent clean airflow, whichever is greater, in occupied classroom environments.

And, while I applaud this California DPH recommendation as a step in the right direction, even this falls well short of the 40 CFM/person defined by ASHRAE 241 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ashrae.org%2Fabout%2Fnew
takes-the-lead-in-providing-technical-resources-for-controlling-infectious-
aerosols&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C11d0e
, which was commissioned by the White House to update indoor air quality standards with what the pandemic taught us is necessary to effectively curtail the transmission of infectious disease. If we aren't even building new schools with 241's guidance in mind (such that HVAC systems are capable of higher CFM/person, even if they don't run in "infection risk management mode" at all times), aren't we perpetuating today's objections over the inadequacy of school systems to meet the modern standard to even the next generation of brand-new classrooms? As documented in the meeting minutes for Oct 31 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsboh.wa.gov%2Fsites%2Fdefault%
11%2FSBOH%2520SRP%2520TAC%2520Meeting%2520Materials%252024-11-
20_0.pdf&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C11d0
, Dr. Boris (air quality SME) impressed upon the committee that "this is not even matching what the recommendations are from the CDC. We are not aiming high." But shouldn't we do better for our kids?

I do understand the objections from TAC members, such as my district's Brian Buck, over the perceived conflict between infection control and energy efficiency standards. But as this primer on ASHRAE 241 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Frochesterashrae.org%2Fimages%
(by its author Bill Bahnfleth, PhD) explains, we have many options for how to achieve

greater CFM/person, including (as California emphasizes <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.cdph.ca.gov%2FPrograms%19%2FCOVID-19-and-Improving-Indoor-Air-Quality-in-Schools.aspx&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C1) adding portable air cleaning devices with clean, "mechanical"-only filtration (pleated filters, no electronic cleaning technologies). Slide 43 shows multiple "passing" scenarios for a ~9,000 cu ft classroom like my daughter's.

I speak from experience here because I spent over a year working with Member Buck trying to update the Lake Washington School District's policy on portable HEPA filters, which currently fall under a blanket "personal appliances" ban. I referenced guidance from EPA <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.epa.gov%2Fcoronavirus%2Findoor-environments-schools-during-covid-19-pandemic-and-beyond&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C11d0e, CDC <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2Fncov%2Fprevent-getting-sick%2Fimproving-ventilation-in-buildings.html&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C, WA DOH <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoh.wa.gov%2Fsites%2Fdefault%07%2F333-256.pdf%3Fuid%3D62df0b3b8ceb2&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc3, ASHRAE <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Frochesterashrae.org%2Fimages%, countless <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.sciencedirect.com%2Fscienc studies <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.reuters.com%2Fworld%2Feu study-shows-ventilation-can-cut-school-covid-cases-by-82-2022-03-22%2F&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C11d0e2, and even a pilot bulk HEPA purchase program in nearby King County school districts <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdeohs.washington.edu%2Fhsm-blog%2Fhealthy-air-healthy-schools&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C11d0e, but Member Buck emphasized the district policy that portable units are "not recommended" where central HVAC is deemed sufficient. We eventually agreed on a policy exception permitting me to set up and maintain the filter in my child's classroom, but only with a "documented medical need."

While I'm grateful for the accommodation for a HEPA filter that costs less than 3 cents/day to operate at ~45dB and adds 2.25 ACH (or roughly 13 CFM/person with an occupancy of 25 people), policies that are hostile to portable filters will keep thousands of classrooms from enjoying the health benefits (and reduced absenteeism) of cleaner indoor air—especially in the absence of WAC language requiring schools meet modern standards.

If not a higher minimum codified into WAC for new and existing schools, even a recommendation of higher CFM/person would offer school officials an appropriate standard to target with the goal of creating healthier communities. It would be even more effective to pair that with official language on keeping CO2 below 800ppm, as WA DOH has recommended <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoh.wa.gov%2Fsites%2Fdefault%07%2F333-256.pdf%3Fuid%3D62df0b3b8ceb2&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc3(as a proxy for air quality and viral transmission risk), and clearly condoning the use of HEPA filters when central HVAC proves insufficient or thermal/energy concerns prevent the addition of more outside air.

I would be happy to speak to these concerns at tomorrow's meeting or in any other forum (although I do not see an agenda item <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsboh.wa.gov%2Fsites%2Fdefault%11%2FSBOH%2520SRP%2520TAC%2520Meeting%2520Materials%252024-11-20_0.pdf&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C11d0 for public comment). I also was not able to find more information on the "focus groups" cited on the project website <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsboh.wa.gov%2Frulemaking%2Farules-and-activity%2F2024-2025-school-rule-review-project&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C90f73141dcfa48bdc39808dd08d21d3b%7C11d0e2 as being set up in December, but would be happy to join those as well. Thank you all for your time and for bringing your expertise to this project on behalf of kids, educators, and families across the state.

Greg Howard
Kirkland, WA

From: Bob Runnells
Sent: 11/24/2024 10:49:01 AM
To: bill teachingsmiles.com
Subject: Re: Petition for Rule Change #22

External Email

Thank you Bill.
And thank you for all your efforts.

Do you finally feel a tailwind?
https://www.tampabay.com/news/florida-politics/2024/11/22/florida-ladapo-surgeon-general-rfk-trump-fluoride/
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.tampabay.com%2Fnews%2Florida-politics%2F2024%2F11%2F22%2Fflorida-ladapo-surgeon-general-rfk-trump-fluoride%2F&data=05%7C02%7CWSBOH%40sboh.wa.gov%7C2e04a8c419d64990380408dd0cb8a6ae%7C

And feel even more emboldened by the last article in Saturday's Coffee & COVID newsletter by Jeff Childers, Esq.
https://www.coffeeandcovid.com/p/doge-opoly-saturday-november-23-2024
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.coffeeandcovid.com%2Fp%2Fdoge-opoly-saturday-november-23-2024&data=05%7C02%7CWSBOH%40sboh.wa.gov%7C2e04a8c419d64990380408dd0cb8a6ae%7C11d0e
.

(Apologies, but I took the liberty to Reply All, since I know quite a few of those on your mailing list already).
Regards,
Bob Runnells

Fighting for more natural healthcare and informed consent.
CHD - WA Chapter co-lead; ICWA president,

On Sun, Nov 24, 2024 at 9:50 AM bill teachingsmiles.com <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fteachingsmiles.com%2F&data=05%
<bill@teachingsmiles.com <mailto:bill@teachingsmiles.com> > wrote:

> Dear Washington State Board of Health,
>
> Public Health Malpractice
>
> Protecting the public health rather than profits of industry.
>
> Attached is our 22nd petition to protect the public health.
>
> We cannot understand the persistent denial by the Board of Health to even have a forum to even discuss fluoridation's lack of benefit and serious harm to the public. The public is not served by hiding and ignoring science.
>
> Putting the cities in liability for harm and claiming you do not add the fluoride to water and are not the final manufacturer of the illegal drug makes no moral or ethical

sense.

Your prompt response and action is required.

Sincerely,
Bill Osmunson DDS MPH
Washington Action for Safe Water

--

-Bob

_____
From: Derek Kemppainen
Sent: 1/3/2025 12:01:53 PM
To: DOH WSBOH
Cc:
Subject: My Public Comments for January 8th BOH Meeting - Water Fluoridation

attachments\A179463269C94AE3_10 Facts about Fluoride with Detail.pdf

attachments\704B2C62AFF24C96_3 Reasons to End Water Fluoridation.pdf

attachments\9912CE0C69DD4CDE_Concerns Regarding WSDOH Recommen_PRDTOOL_NAMETOOLONG.docx

attachments\09F36D94E2CD4E3A_50 Reasons to Oppose Fluoridation.pdf

External Email

Subject: Concerns Regarding WSDOH Recommendation on Water Fluoridation

Dear WSBOH,

I am writing to express my concerns regarding the current WSDOH recommendation to fluoridate drinking water.

It seems unthinkable for a physician to prescribe a lifelong dosage of a potentially toxic substance, with no proven clinical benefit, to someone they have never met, interviewed, or examined. Such an approach disregards individual medical histories and informed consent. Even more troubling, this recommendation effectively suggests that the public consume an unspecified amount of this substance indefinitely, not because of their individual needs, but because some children may suffer from tooth decay.

This one-size-fits-all approach is not only unscientific but also illegal, unethical and unacceptable.

On September 24, 2024, the U.S. District Court for the Northern District of California issued a landmark ruling, determining that water fluoridation at 0.7 mg/L poses an "unreasonable risk" to children's health by reducing IQ. This decision underscores the urgent need to reevaluate the continued recommendation of fluoride at these levels, as it is no longer justifiable in light of the demonstrated harm.

In addition to my concerns, I would like to share the attached Top 50, Top 10, and Top 3 Reasons to Discontinue Fluoridation for your consideration. These reasons encapsulate a range of ethical, scientific, and public health perspectives that I believe warrant serious reflection.

The recommendation to fluoridate drinking water is in violation of numerous state and federal laws.

The Department of Health is complicit in encouraging violations of RCW 69.41.030, which governs the distribution and administration of legend drugs. Fluoride, classified as a legend drug, is being recommended for unauthorized delivery to the public without prescriptions, medical oversight, or the involvement of licensed professionals. This circumvention of lawful distribution channels and medical oversight constitutes a breach of RCW 69.41.030.

Additionally, under RCW 69.38.010, sodium fluoride meets the state's definition of a

poison. The intentional addition of poison to the water supply contravenes RCW 69.40.030, which criminalizes the willful mingling of poisons in water supplies and carries penalties of imprisonment and substantial fines.

The Department also fails to ensure compliance with WAC 246-290-220, which mandates adherence to ANSI/NSF Standard 60 & 61. These standards limit the leaching of harmful contaminants into drinking water and ensure the additives are safe. Moreover, the recommendation violates RCW 70A.125.060 by failing to prioritize the safety of the public water system, thereby compromising water quality and endangering public health.

Further, the promotion of fluoridation by the Department infringes upon federal regulations under CFR Title 21. Specifically, it violates 21 CFR 202.1(e) by failing to disclose side effects and making false or misleading claims about fluoride. This also constitutes a breach of the Food, Drug, and Cosmetic Act by promoting and distributing an unapproved drug without proper oversight or informed consent.

Finally, by recommending the addition of fluoride to water supplies without informed consent or medical oversight, the Department of Health is in violation of ethical standards set by the Nuremberg Code and the Belmont Report. These actions infringe upon constitutional rights, including the right to bodily integrity and freedom of medical choice.

Under federal law, fluoridation qualifies as medical experimentation. Fluoride is an unapproved drug being administered to human subjects without their consent, in violation of 21 CFR § 312.3(b). The Department has not ensured "legally effective informed consent" as required by 21 CFR § 50.20 and 21 CFR § 50.25(a)(1). Furthermore, no Investigational New Drug (IND) application has been filed, as required under 21 CFR § 312, nor has Institutional Review Board (IRB) approval been sought, as mandated by 21 CFR Part 56.

Lastly, under the Food, Drug, and Cosmetic Act (FD&C Act), the recommendation to fluoridate constitutes the unlawful introduction of an unapproved drug into interstate commerce without the required New Drug Application (NDA) or IND, in violation of 21 U.S.C. § 355. These actions amount to illegal medical experimentation and a failure to protect public health.

I urge the Department of Health to reconsider this recommendation in light of these legal, ethical, and public health concerns. Thank you for your attention to this matter.

Sincerely,

Derek Kemppainen

31404 NE 142nd Ave

Battle Ground, WA 98604

360-975-2011

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.

Communities Are Starting to Get the Message

In recent years, communities throughout the United States and Canada have started to reassess the conventional wisdom of fluoridating their water. Many of these communities, including over 50 since 2010, are reaching the obvious conclusion: when stripped of its endorsements, well-meaning intentions, and PR-praise, fluoridation simply makes no sense.

Europe reached this conclusion a long time ago. It is now time for the U.S. and other English-speaking nations to follow suit.

3 REASONS TO END WATER FLUORIDATION

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 mass 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.

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.

3) FLUORIDATION IS NOT A SAFE PRACTICE

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 embarrassment and distress at a time of life 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.

FOR MORE REASONS WHY FLUORIDATION SHOULD END,
SEE: WWW.FLUORIDEALERT.ORG.

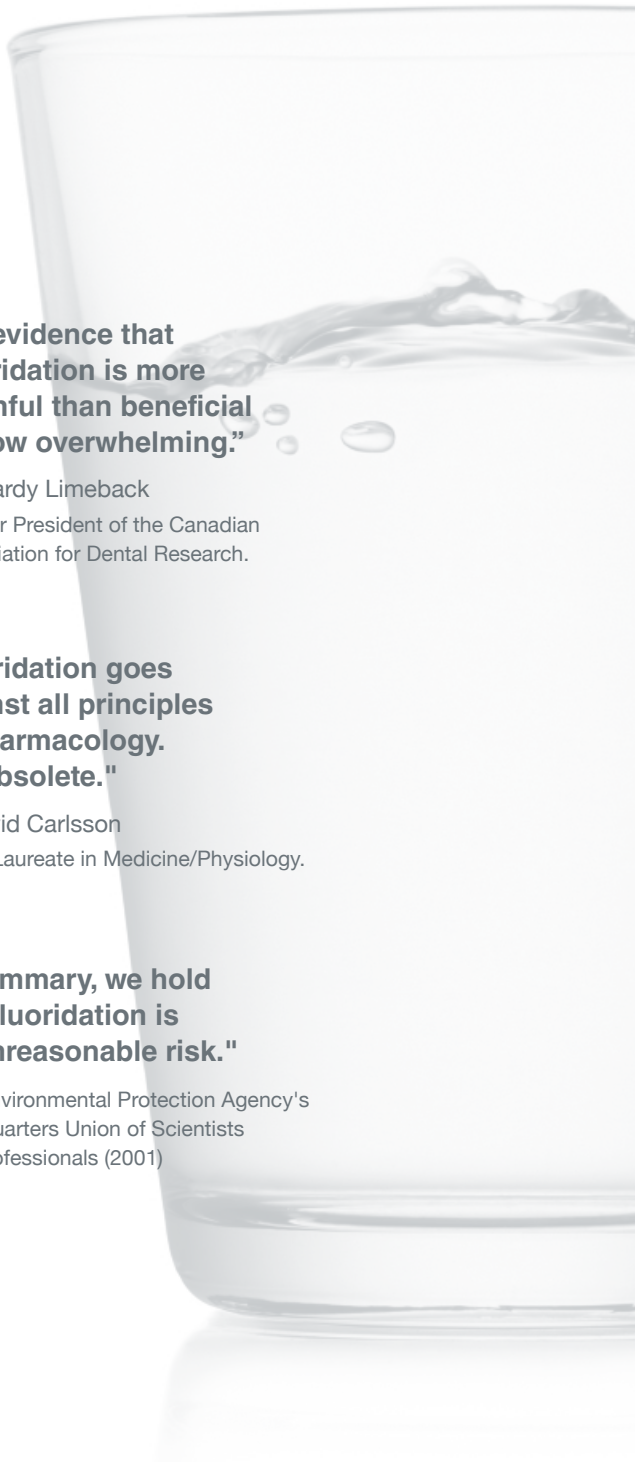
FLUORIDEALERT.ORG
Fluoride Action Network

50 REASONS TO OPPOSE FLUORIDATION

Written by
PAUL CONNETT, PHD.
Fluoride Action Network

OTHER CONTRIBUTORS:

James Beck, MD, PhD
Michael Connett, JD
Hardy Limeback, DDS, PhD
David McRae
Spedding Micklem, D.Phil



"The evidence that fluoridation is more harmful than beneficial is now overwhelming."

Dr. Hardy Limeback
Former President of the Canadian Association for Dental Research.

"Fluoridation goes against all principles of pharmacology. It's obsolete."

Dr. Arvid Carlsson
Nobel Laureate in Medicine/Physiology.

"In summary, we hold that fluoridation is an unreasonable risk."

U.S. Environmental Protection Agency's Headquarters Union of Scientists and Professionals (2001)

UPDATED AUGUST, 2012

Fluoridation is the practice of adding a fluoride compound to the public drinking water supply ostensibly for the purpose of fighting tooth decay. The levels used range from 0.6 to 1.2 milligrams of fluoride ion per liter. The practice began in the United States in 1945 and was endorsed by most U.S. medical and dental associations shortly thereafter. Very few countries, however, have adopted the practice to any significant extent. Only eleven countries in the world have more than 50% of their populations drinking artificially fluoridated water (Australia, Brunei, Chile, Hong Kong, Ireland, Israel, Guyana, Malaysia, New Zealand, Singapore, and the United States).

In Europe, only Ireland (73%), Poland (1%), Serbia (3%), Spain (11%), and the U.K. (11%) fluoridate any of their water. Most developed countries, including Japan and 97% of the western European population, do not consume fluoridated water.

In the U.S., about 70% of public water supplies are fluoridated. This equates to approximately 185 million people, which is over half the number of people drinking artificially fluoridated water worldwide. Some countries have areas with high natural fluoride levels in the water. These include India, China and parts of Africa. In these countries measures are being taken to remove the fluoride because of the health problems that fluoride can cause.

"WE'VE GONE WITH THE STATUS QUO REGARDING FLUORIDE FOR MANY YEARS—FOR TOO LONG, REALLY—AND NOW WE NEED TO TAKE A FRESH LOOK. IN THE SCIENTIFIC COMMUNITY, PEOPLE TEND TO THINK THIS IS SETTLED. BUT WHEN WE LOOKED AT THE STUDIES THAT HAVE BEEN DONE, WE FOUND THAT MANY OF THESE QUESTIONS ARE UNSETTLED AND WE HAVE MUCH LESS INFORMATION THAN WE SHOULD, CONSIDERING HOW LONG THIS HAS BEEN GOING ON."

Dr. John Doull
CHAIRMAN, NATIONAL RESEARCH COUNCIL'S REVIEW ON FLUORIDE IN DRINKING WATER.

FLUORIDATION IS A BAD MEDICAL PRACTICE

1) FLUORIDE IS THE ONLY CHEMICAL ADDED TO WATER FOR THE PURPOSE OF MEDICAL TREATMENT.

The U.S. Food and Drug Administration (FDA) classifies fluoride as a drug when used to prevent or mitigate disease (FDA 2000). As a matter of basic logic, adding fluoride to water for the sole purpose of preventing tooth decay (a non-waterborne disease) is a form of medical treatment. All other water treatment chemicals are added to improve the water's quality or safety, which fluoride does not do.

2) 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)?

3) THE DOSE CANNOT BE CONTROLLED.

Once fluoride is put in the water it is impossible to control the dose each individual receives because people drink different amounts of water. Being able to control the dose a patient receives is critical. Some people (e.g., manual laborers, athletes, diabetics, and people with kidney disease) drink substantially more water than others.

4) THE FLUORIDE GOES TO EVERYONE REGARDLESS OF AGE, HEALTH OR VULNERABILITY.

According to Dr. Arvid Carlsson, the 2000 Nobel Laureate in Medicine and Physiology and one of the scientists who helped keep fluoridation out of Sweden:

"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" (Carlsson 1978).

5) PEOPLE NOW RECEIVE FLUORIDE FROM MANY OTHER SOURCES BESIDES WATER.

Fluoridated water is not the only way people are exposed to fluoride. Other sources of fluoride include food and beverages processed with fluoridated water (Kiritsy 1996; Heilman 1999), fluoridated dental products (Bentley 1999; Levy 1999), mechanically deboned meat (Fein 2001), tea (Levy 1999), and pesticide residues (e.g., from cryolite) on food (Stannard 1991; Burgstahler 1997). It is now widely acknowledged that exposure to non-water sources of fluoride has significantly increased since the water fluoridation program first began (NRC 2006).

6) FLUORIDE IS NOT AN ESSENTIAL NUTRIENT.

No disease, not even tooth decay, is caused by a "fluoride deficiency" (NRC 1993; Institute of Medicine 1997, NRC 2006). Not a single biological process has been shown to require fluoride. On the contrary there is extensive evidence that fluoride can interfere with many important biological processes. Fluoride interferes with numerous enzymes (Waldbott 1978). In combination with aluminum, fluoride interferes with G-proteins (Bigay 1985, 1987). Such interactions give aluminum-fluoride complexes the potential to interfere with signals from growth factors, hormones and neurotransmitters (Strunecka & Patocka 1999; Li 2003). More and more studies indicate that fluoride can interfere with biochemistry in fundamental ways (Barbier 2010).

7) THE LEVEL IN MOTHERS' MILK IS VERY LOW.

Considering reason #6 it is perhaps not surprising that the level of fluoride in mother's milk is remarkably low (0.004 ppm, NRC, 2006). This means that a bottle-fed baby consuming fluoridated water (0.6 – 1.2 ppm) can get up to 300 times more fluoride than a breast-fed baby. There are no benefits (see reasons #11-19), only risks (see reasons #21-36), for infants ingesting this heightened level of fluoride at such an early age (an age where susceptibility to environmental toxins is particularly high).

8) FLUORIDE ACCUMULATES IN THE BODY.

Healthy adult kidneys excrete 50 to 60% of the fluoride they ingest each day (Marier & Rose 1971). The remainder accumulates in the body, largely in calcifying tissues such as the bones and pineal gland (Luke 1997, 2001). Infants and children excrete less fluoride from their kidneys and take up to 80% of ingested fluoride into their bones (Ekstrand 1994). The fluoride concentration in bone steadily increases over a lifetime (NRC 2006).

9) NO HEALTH AGENCY IN FLUORIDATED COUNTRIES IS MONITORING FLUORIDE EXPOSURE OR SIDE EFFECTS.

No regular measurements are being made of the levels of fluoride in urine, blood, bones, hair, or nails of either the general population or sensitive subparts of the population (e.g., individuals with kidney disease).

10) THERE HAS NEVER BEEN A SINGLE RANDOMIZED CLINICAL TRIAL TO DEMONSTRATE FLUORIDATION'S EFFECTIVENESS OR SAFETY.

Despite the fact that fluoride has been added to community water supplies for over 60 years, "there have been no randomized trials of water fluoridation" (Cheng 2007). Randomized studies are the standard method for determining the safety and effectiveness of any purportedly beneficial medical treatment. In 2000, the British Government's "York Review" could not give a single fluoridation trial a Grade A classification – despite 50 years of research (McDonagh 2000). The U.S. Food and Drug Administration (FDA) continues to classify fluoride as an "unapproved new drug."

SWALLOWING FLUORIDE PROVIDES NO (OR VERY LITTLE) BENEFIT

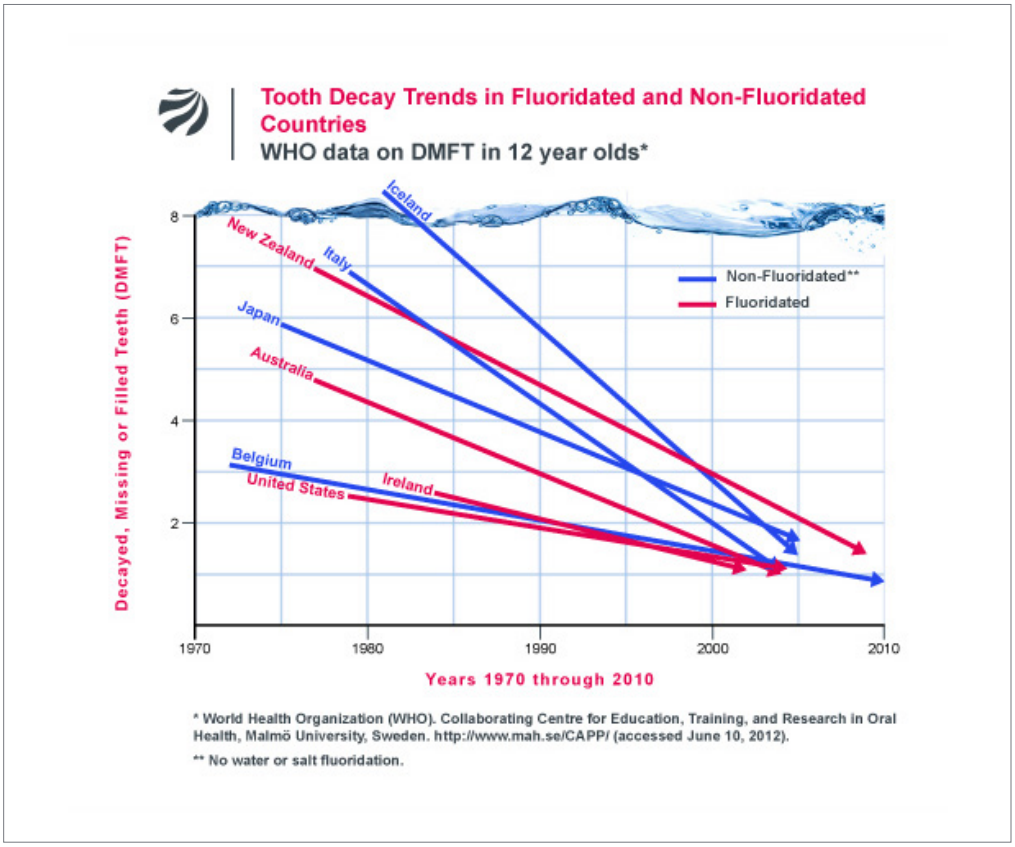
11) BENEFIT IS TOPICAL NOT SYSTEMIC. THE CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC, 1999, 2001) HAS NOW ACKNOWLEDGED THAT THE MECHANISM OF FLUORIDE'S BENEFITS ARE MAINLY TOPICAL, NOT SYSTEMIC.

There is no need whatsoever, therefore, to swallow fluoride to protect teeth. Since the purported benefit of fluoride is topical, and the risks are systemic, it makes more sense to deliver the fluoride directly to the tooth in the form of toothpaste.

Since swallowing fluoride is unnecessary, and potentially dangerous, there is no justification for forcing people (against their will) to ingest fluoride through their water supply.

12) FLUORIDATION IS NOT NECESSARY.

Most western, industrialized countries have rejected water fluoridation, but have nevertheless experienced the same decline in childhood dental decay as fluoridated countries. (See data from World Health Organization presented graphically in Figure).



13) FLUORIDATION'S ROLE IN THE DECLINE OF TOOTH DECAY IS IN SERIOUS DOUBT.

The largest survey ever conducted in the US (over 39,000 children from 84 communities) by the National Institute of Dental Research showed little difference in tooth decay among children in fluoridated and non-fluoridated communities (Hileman 1989). According to NIDR researchers, the study found an average difference of only 0.6 DMFS (Decayed, Missing, and Filled Surfaces) in the permanent teeth of children aged 5-17 residing their entire lives in either fluoridated or unfluoridated areas (Brunelle & Carlos, 1990). This difference is less than one tooth surface, and less than 1% of the 100+ tooth surfaces available in a child's mouth. Large surveys from three Australian states have found even less of a benefit, with decay reductions ranging from 0 to 0.3 of one permanent tooth surface (Spencer 1996; Armfield & Spencer 2004). None of these studies have allowed for the possible delayed eruption of the teeth that may be caused by exposure to fluoride, for which there is some evidence (Komarek 2005). A one-year delay in eruption of the permanent teeth would eliminate the very small benefit recorded in these modern studies.

14) NIH-FUNDED STUDY ON INDIVIDUAL FLUORIDE INGESTION AND TOOTH DECAY FOUND NO SIGNIFICANT CORRELATION.

A multi-million dollar, U.S. National Institutes of Health (NIH)-funded study found no significant relationship between tooth decay and fluoride intake among children (Warren 2009). This is the first time tooth decay has been investigated as a function of individual exposure (as opposed to mere residence in a fluoridated community).

15) TOOTH DECAY IS HIGH IN LOW-INCOME COMMUNITIES THAT HAVE BEEN FLUORIDATED FOR YEARS.

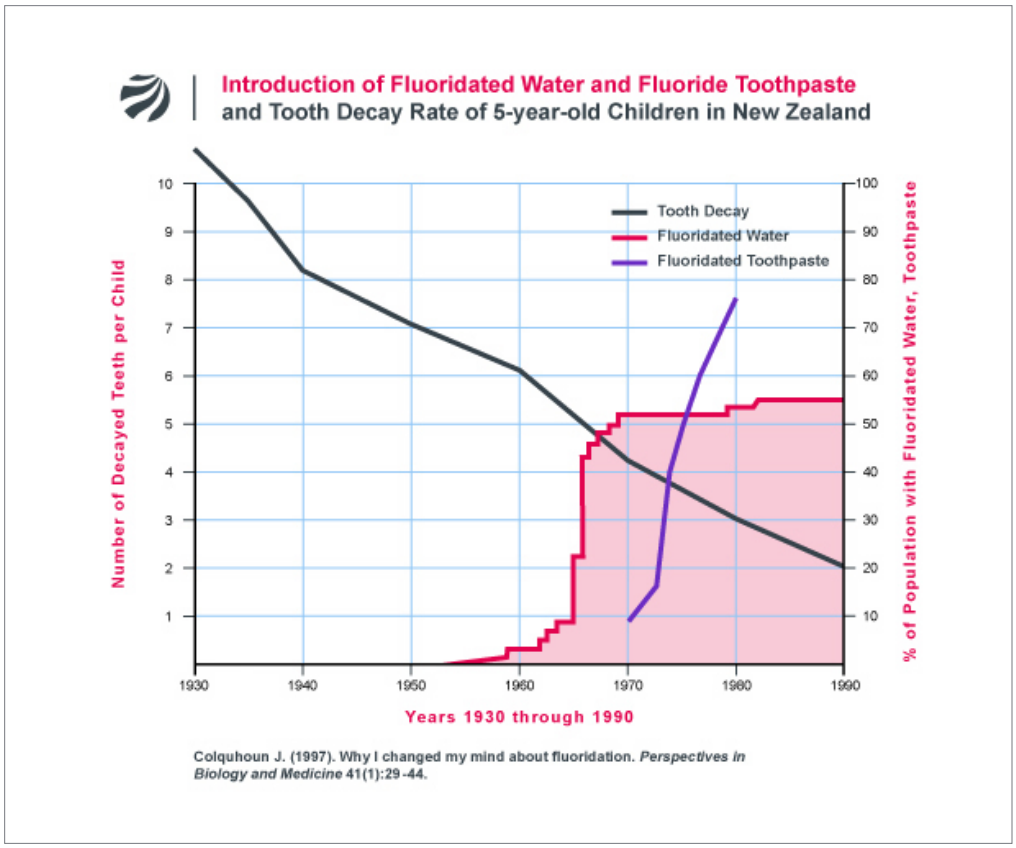
Despite some claims to the contrary, water fluoridation cannot prevent the oral health crises that result from rampant poverty, inadequate nutrition, and lack of access to dental care. There have been numerous reports of severe dental crises in low-income neighborhoods of US cities that have been fluoridated for over 20 years (e.g., Boston, Cincinnati, New York City, and Pittsburgh). In addition, research has repeatedly found fluoridation to be ineffective at preventing the most serious oral health problem facing poor children, namely "baby bottle tooth decay," otherwise known as early childhood caries (Barnes 1992; Shiboski 2003).

16) TOOTH DECAY DOES NOT GO UP WHEN FLUORIDATION IS STOPPED.

Where fluoridation has been discontinued in communities from Canada, the former East Germany, Cuba and Finland, dental decay has not increased but has generally continued to decrease (Maupomé 2001; Kunzel & Fischer, 1997, 2000; Kunzel 2000; Seppa 2000).

17) TOOTH DECAY WAS COMING DOWN BEFORE FLUORIDATION STARTED.

Modern research shows that decay rates were coming down before fluoridation was introduced in Australia and New Zealand and have continued to decline even after its benefits would have been maximized. (Colquhoun 1997; Diesendorf 1986). As the following figure indicates, many other factors are responsible for the decline of tooth decay that has been universally reported throughout the western world.



18) THE STUDIES THAT LAUNCHED FLUORIDATION WERE METHODOLOGICALLY FLAWED.

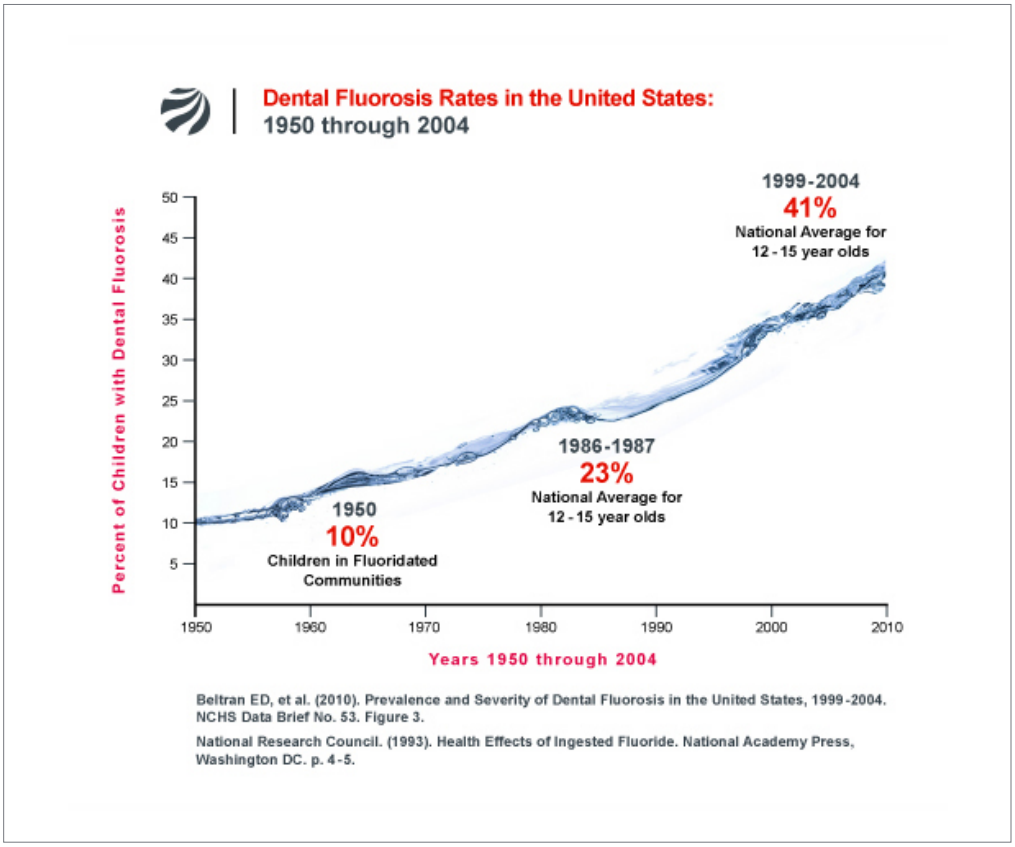
The early trials conducted between 1945 and 1955 in North America that helped to launch fluoridation, have been heavily criticized for their poor methodology and poor choice of control communities (De Stefano 1954; Sutton 1959, 1960, 1996; Ziegelbecker 1970).

According to Dr. Hubert Arnold, a statistician from the University of California at Davis, the early fluoridation trials "are especially rich in fallacies, improper design, invalid use of statistical methods, omissions of contrary data, and just plain muddleheadedness and hebetude." Serious questions have also been raised about Trendley Dean's (the father of fluoridation) famous 21-city study from 1942 (Ziegelbecker 1981).

CHILDREN ARE BEING OVER-EXPOSED TO FLUORIDE

19) CHILDREN ARE BEING OVER-EXPOSED TO FLUORIDE.

The fluoridation program has massively failed to achieve one of its key objectives, i.e., to lower dental decay rates while limiting the occurrence of dental fluorosis (a discoloring of tooth enamel caused by too much fluoride. The goal of the early promoters of fluoridation was to limit dental fluorosis (in its very mild form) to10% of children (NRC 1993, pp. 6-7). In 2010, however, the Centers for Disease Control and Prevention (CDC) reported that 41% of American adolescents had dental fluorosis, with 8.6% having mild fluorosis and 3.6% having either moderate or severe dental fluorosis (Beltran-Aguilar2010).



As the 41% prevalence figure is a national average and includes children living in fluoridated and unfluoridated areas, the fluorosis rate in fluoridated communities will obviously be higher.

The British Government's York Review estimated that up to 48% of children in fluoridated areas worldwide have dental fluorosis in all forms, with 12.5% having fluorosis of aesthetic concern (McDonagh, 2000).

20) THE HIGHEST DOSES OF FLUORIDE ARE GOING TO BOTTLE-FED BABIES.

Because of their sole reliance on liquids for their food intake, infants consuming formula made with fluoridated water have the highest exposure to fluoride, by bodyweight, in the population. Because infant exposure to fluoridated water has been repeatedly found to be a major risk factor for developing dental fluorosis later in life (Marshall 2004; Hong 2006; Levy 2010), a number of dental researchers have recommended that parents of newborns not use fluoridated water when reconstituting formula (Ekstrand 1996; Pendrys 1998; Fomon 2000; Brothwell 2003; Marshall 2004). Even the American

Dental Association (ADA), the most ardent institutional proponent of fluoridation, distributed a November 6, 2006 email alert to its members recommending that parents be advised that formula should be made with “low or no-fluoride water.” Unfortunately, the ADA has done little to get this information into the hands of parents. As a result, many parents remain unaware of the fluorosis risk from infant exposure to fluoridated water.

EVIDENCE OF HARM TO OTHER TISSUES

21) DENTAL FLUOROSIS MAY BE AN INDICATOR OF WIDER SYSTEMIC DAMAGE.

There have been many suggestions as to the possible biochemical mechanisms underlying the development of dental fluorosis (Matsuo 1998; Den Besten 1999; Sharma 2008; Duan 2011; Tye 2011) and they are complicated for a lay reader. While promoters of fluoridation are content to dismiss dental fluorosis (in its milder forms) as merely a cosmetic effect, it is rash to assume that fluoride is not impacting other developing tissues when it is visibly damaging the teeth by some biochemical mechanism (Groth 1973; Colquhoun 1997). Moreover, ingested fluoride can only cause dental fluorosis during the period before the permanent teeth have erupted (6-8 years), other tissues are potentially susceptible to damage throughout life. For example, in areas of naturally high levels of fluoride the first indicator of harm is dental fluorosis in children. In the same communities many older people develop skeletal fluorosis.

22) FLUORIDE MAY DAMAGE THE BRAIN.

According to the National Research Council (2006), “it is apparent that fluorides have the ability to interfere with the functions of the brain.” In a review of the literature commissioned by the US Environmental Protection Agency (EPA), fluoride has been listed among about 100 chemicals for which there is substantial evidence of developmental neurotoxicity.” Animal experiments show that fluoride accumulates in the brain and alters mental behavior in a manner consistent with a neurotoxic agent (Mullenix 1995). In total, there have now been over 100 animal experiments showing that fluoride can damage the brain and impact learning and behavior. According to fluoridation proponents, these animal studies can be ignored because high doses were used. However, it is important to note that rats generally require five times more fluoride to reach the same plasma levels in humans (Sawan 2010). Further, one animal experiment found effects at remarkably low doses (Varner 1998). In this study, rats fed for one year with 1 ppm

fluoride in their water (the same level used in fluoridation programs), using either sodium fluoride or aluminum fluoride, had morphological changes to their kidneys and brains, an increased uptake of aluminum in the brain, and the formation of beta-amyloid deposits which are associated with Alzheimer's disease. Other animal studies have found effects on the brain at water fluoride levels as low as 5 ppm (Liu 2010).

23) FLUORIDE MAY LOWER IQ.

There have now been 33 studies from China, Iran, India and Mexico that have reported an association between fluoride exposure and reduced IQ. One of these studies (Lin 1991) indicates that even just moderate levels of fluoride exposure (e.g., 0.9 ppm in the water) can exacerbate the neurological defects of iodine deficiency. Other studies have found IQ reductions at 1.9 ppm (Xiang 2003a,b); 0.3-3.0 ppm (Ding 2011); 1.8-3.9 ppm (Xu 1994); 2.0 ppm (Yao 1996, 1997); 2.1-3.2 ppm (An 1992); 2.38 ppm (Poureslami 2011); 2.45 ppm (Eswar 2011); 2.5 ppm (Seraj 2006); 2.85 ppm (Hong 2001); 2.97 ppm (Wang 2001, Yang 1994); 3.15 ppm (Lu 2000); 4.12 ppm (Zhao 1996). In the Ding study, each 1 ppm increase of fluoride in urine was associated with a loss of 0.59 IQ points. None of these studies indicate an adequate margin of safety to protect all children drinking artificially fluoridated water from this affect. According to the National Research Council (2006), "the consistency of the results [in fluoride/IQ studies] appears significant enough to warrant additional research on the effects of fluoride on intelligence." The NRC's conclusion has recently been amplified by a team of Harvard scientists whose fluoride/IQ meta-review concludes that fluoride's impact on the developing brain should be a "high research priority." (Choi et al., 2012). Except for two small IQ studies from New Zealand (Shannon et al., 1986; Spittle 1998) no fluoridating country has yet investigated the matter.

24) FLUORIDE MAY CAUSE NON-IQ NEUROTOXIC EFFECTS.

Reduced IQ is not the only neurotoxic effect that may result from fluoride exposure. At least three human studies have reported an association between fluoride exposure and impaired visual-spatial organization (Calderon 2000; Li 2004; Rocha-Amador 2009); while four other studies have found an association between prenatal fluoride exposure and fetal brain damage (Han 1989; Du 1992; Dong 1993; Yu 1996).

25) FLUORIDE AFFECTS THE PINEAL GLAND.

Studies by Jennifer Luke (2001) show that fluoride accumulates in the human pineal gland to very high levels. In her Ph.D. thesis, Luke has also shown in animal studies that fluoride reduces melatonin production and leads to an earlier onset of puberty (Luke 1997). Consistent with Luke's findings, one of the earliest fluoridation trials in the U.S. (Schlesinger 1956) reported that on average young girls in the fluoridated community reached menstruation 5 months earlier than girls in the non-fluoridated community. Inexplicably, no fluoridating country has attempted to reproduce either Luke's or Schlesinger's findings or examine the issue any further.

26) FLUORIDE AFFECTS THYROID FUNCTION.

According to the U.S. National Research Council (2006), "several lines of information indicate an effect of fluoride exposure on thyroid function." In the Ukraine, Bachinskii (1985) found a lowering of thyroid function, among otherwise healthy people, at 2.3 ppm fluoride in water. In the middle of the 20th century, fluoride was prescribed by a number of European doctors to reduce the activity of the thyroid gland for those suffering from hyperthyroidism (overactive thyroid) (Stecher 1960; Waldbott 1978). According to a clinical study by Galletti and Joyet (1958), the thyroid function of hyperthyroid patients was effectively reduced at just 2.3 to 4.5 mg/day of fluoride ion. To put this finding in perspective, the Department of Health and Human Services (DHHS, 1991) has estimated that total fluoride exposure in fluoridated communities ranges from 1.6 to 6.6 mg/day. This is a remarkable fact, particularly consider ing the rampant and increasing problem of hypothyroidism (underactive thyroid) in the United States and other fluoridated countries. Symptoms of hypothyroid ism include depression, fatigue, weight gain, muscle and joint pains, increased cholesterol levels, and heart disease. In 2010, the second most prescribed drug of the year was Synthroid (sodium levothyroxine) which is a hormone replacement drug used to treat an underactive thyroid.

27) FLUORIDE CAUSES ARTHRITIC SYMPTOMS.

Some of the early symptoms of skeletal fluorosis (a fluoride-induced bone and joint disease that impacts millions of people in India, China, and Africa), mimic the symptoms of arthritis (Singh 1963; Franke 1975; Teotia 1976; Carnow 1981; Czerwinski 1988; DHHS 1991). According to a review on fluoridation published in Chemical & Engineering News, "Because some

of the clinical symptoms mimic arthritis, the first two clinical phases of skeletal fluorosis could be easily misdiagnosed" (Hileman 1988). Few, if any, studies have been done to determine the extent of this misdiagnosis, and whether the high prevalence of arthritis in America (1 in 3 Americans have some form of arthritis – CDC, 2002) and other fluoridated countries is related to growing fluoride exposure, which is highly plausible. Even when individuals in the U.S. suffer advanced forms of skeletal fluorosis (from drinking large amounts of tea), it has taken years of misdiagnoses before doctors finally correctly diagnosed the condition as fluorosis.

28) FLUORIDE DAMAGES BONE.

An early fluoridation trial (Newburgh-Kingston 1945-55) found a significant two-fold increase in cortical bone defects among children in the fluoridated community (Schlesinger 1956). The cortical bone is the outside layer of the bone and is important to protect against fracture. While this result was not considered important at the time with respect to bone fractures, it did prompt questions about a possible link to osteosarcoma (Caffey, 1955; NAS, 1977). In 2001, Alarcon-Herrera and co-workers reported a linear correlation between the severity of dental fluorosis and the frequency of bone fractures in both children and adults in a high fluoride area in Mexico.

29) FLUORIDE MAY INCREASE HIP FRACTURES IN THE ELDERLY.

When high doses of fluoride (average 26 mg per day) were used in trials to treat patients with osteoporosis in an effort to harden their bones and reduce fracture rates, it actually led to a higher number of fractures, particularly hip fractures (Inkovaara 1975; Gerster 1983; Dambacher 1986; O'Duffy 1986; Hedlund 1989; Bayley 1990; Gutteridge 1990. 2002; Orcel 1990; Riggs 1990 and Schnitzler 1990). Hip fracture is a very serious issue for the elderly, often leading to a loss of independence or a shortened life. There have been over a dozen studies published since 1990 that have investigated a possible relationship between hip fractures and long term consumption of artificially fluoridated water or water with high natural levels. The results have been mixed – some have found an association and others have not. Some have even claimed a protective effect. One very important study in China, which examined hip fractures in six Chinese villages, found what appears to be a dose-related increase in hip fracture as the concentration of fluoride rose from 1 ppm to 8 ppm (Li 2001) offering little comfort to those who drink a lot of

fluoridated water. Moreover, in the only human epidemiological study to assess bone strength as a function of bone fluoride concentration, researchers from the University of Toronto found that (as with animal studies) the strength of bone declined with increasing fluoride content (Chachra 2010). Finally, a recent study from Iowa (Levy 2009), published data suggesting that low-level fluoride exposure may have a detrimental effect on cortical bone density in girls (an effect that has been repeatedly documented in clinical trials and which has been posited as an important mechanism by which fluoride may increase bone fracture rates).

30) PEOPLE WITH IMPAIRED KIDNEY FUNCTION ARE PARTICULARLY VULNERABLE TO BONE DAMAGE.

Because of their inability to effectively excrete fluoride, people with kidney disease are prone to accumulating high levels of fluoride in their bone and blood. As a result of this high fluoride body burden, kidney patients have an elevated risk for developing skeletal fluorosis. In one of the few U.S. studies investigating the matter, crippling skeletal fluorosis was documented among patients with severe kidney disease drinking water with just 1.7 ppm fluoride (Johnson 1979). Since severe skeletal fluorosis in kidney patients has been detected in small case studies, it is likely that larger, systematic studies would detect skeletal fluorosis at even lower fluoride levels.

31) FLUORIDE MAY CAUSE BONE CANCER (OSTEOSARCOMA).

A U.S. government-funded animal study found a dose-dependent increase in bone cancer (osteosarcoma) in fluoride-treated, male rats (NTP 1990). Following the results of this study, the National Cancer Institute (NCI) reviewed national cancer data in the U.S. and found a significantly higher rate of osteosarcoma (a bone cancer) in young men in fluoridated versus unfluoridated areas (Hoover et al 1991a). While the NCI concluded (based on an analysis lacking statistical power) that fluoridation was not the cause (Hoover et al 1991b), no explanation was provided to explain the higher rates in the fluoridated areas. A smaller study from New Jersey (Cohn 1992) found osteosarcoma rates to be up to 6 times higher in young men living in fluoridated versus unfluoridated areas. Other epidemiological studies of varying size and quality have failed to find this relationship (a summary of these can be found in Bassin, 2001 and Connett & Neurath, 2005). There are three reasons why a fluoride-osteosarcoma connection is plausible:

First, fluoride accumulates to a high level in bone. Second, fluoride stimulates bone growth. And, third, fluoride can interfere with the genetic apparatus of bone cells in several ways; it has been shown to be mutagenic, cause chromosome damage, and interfere with the enzymes involved with DNA repair in both cell and tissue studies (Tsutsui 1984; Caspary 1987; Kishi 1993; Mihashi 1996; Zhang 2009). In addition to cell and tissue studies, a correlation between fluoride exposure and chromosome damage in humans has also been reported (Sheth 1994; Wu 1995; Meng 1997; Joseph 2000).

32) PROPONENTS HAVE FAILED TO REFUTE THE BASSIN-OSTEOSARCOMA STUDY.

In 2001, Elise Bassin, a dentist, successfully defended her doctoral thesis at Harvard in which she found that young boys had a five-to-seven fold increased risk of getting osteosarcoma by the age of 20 if they drank fluoridated water during their mid-childhood growth spurt (age 6 to 8). The study was published in 2006 (Bassin 2006) but has been largely discounted by fluoridating countries because her thesis adviser Professor Chester Douglass (a promoter of fluoridation and a consultant for Colgate) promised a larger study that he claimed would discount her thesis (Douglass and Joshipura, 2006). Now, after 5 years of waiting the Douglass study has finally been published (Kim 2011) but in no way does this study discount Bassin's findings. The study, which used far fewer controls than Bassin's analysis, did not even attempt to assess the age-specific window of risk that Bassin identified. Indeed, by the authors' own admission, the study had no capacity to assess the risk of osteosarcoma among children and adolescents (the precise population of concern). For a critique of the Douglass study, click here.

33) FLUORIDE MAY CAUSE REPRODUCTIVE PROBLEMS.

Fluoride administered to animals at high doses wreaks havoc on the male reproductive system – it damages sperm and increases the rate of infertility in a number of different species (Kour 1980; Chinoy 1989; Chinoy 1991; Susheela 1991; Chinoy 1994; Kumar 1994; Narayana 1994a,b; Zhao 1995; Elbetieha 2000; Ghosh 2002; Zakrzewska 2002). In addition, an epidemiological study from the US found increased rates of infertility among couples living in areas with 3 ppm or more fluoride in the water (Freni 1994), two studies have found increased fertility among men living in high-fluoride areas of China and

India (Liu 1988; Neelam 1987); four studies have found reduced level of circulating testosterone in males living in high fluoride areas (Hao 2010; Chen P 1997; Susheela 1996; Barot 1998), and a study of fluoride-exposed workers reported a "subclinical reproductive effect" (Ortiz-Perez 2003). While animal studies by FDA researchers have failed to find evidence of reproductive toxicity in fluoride-exposed rats (Sprando 1996, 1997, 1998), the National Research Council (2006) has recommended that, "the relationship between fluoride and fertility requires additional study."

34) SOME INDIVIDUALS ARE HIGHLY SENSITIVE TO LOW LEVELS OF FLUORIDE AS SHOWN BY CASE STUDIES AND DOUBLE BLIND STUDIES.

In one study, which lasted 13 years, Feltman and Kosel (1961) showed that about 1% of patients given 1 mg of fluoride each day developed negative reactions. Many individuals have reported suffering from symptoms such as fatigue, headaches, rashes and stomach and gastro intestinal tract problems, which disappear when they avoid fluoride in their water and diet (Shea 1967; Waldbott 1978; Moolenburgh 1987). Frequently the symptoms reappear when they are unwittingly exposed to fluoride again (Spittle, 2008). No fluoridating government has conducted scientific studies to take this issue beyond these anecdotal reports. Without the willingness of governments to investigate these reports scientifically, should we as a society be forcing these people to ingest fluoride?

35) OTHER SUBSETS OF POPULATION ARE MORE VULNERABLE TO FLUORIDE'S TOXICITY.

In addition to people suffering from impaired kidney function discussed in reason #30 other subsets of the population are more vulnerable to fluoride's toxic effects. According to the Agency for Toxic Substances and Disease Registry (ATSDR 1993) these include: infants, the elderly, and those with diabetes mellitus. Also vulnerable are those who suffer from malnutrition (e.g., calcium, magnesium, vitamin C, vitamin D and iodine deficiencies and protein-poor diets) and those who have diabetes insipidus. See: Greenberg 1974; Klein 1975; Massler & Schour 1952; Marier & Rose 1977; Lin 1991; Chen 1997; Seow 1994; Teotia 1998.

NO MARGIN OF SAFETY

36) THERE IS NO MARGIN OF SAFETY FOR SEVERAL HEALTH EFFECTS.

No one can deny that high natural levels of fluoride damage health. Millions of people in India and China have had their health compromised by fluoride. The real question is whether there is an adequate margin of safety between the doses shown to cause harm in published studies and the total dose people receive consuming uncontrolled amounts of fluoridated water and non-water sources of fluoride.

This margin of safety has to take into account the wide range of individual sensitivity expected in a large population (a safety factor of 10 is usually applied to the lowest level causing harm). Another safety factor is also needed to take into account the wide range of doses to which people are exposed. There is clearly no margin of safety for dental fluorosis (CDC, 2010) and based on the following studies nowhere near an adequate margin of safety for lowered IQ (Xiang 2003a,b; Ding 2011; Choi 2012); lowered thyroid function (Galletti & Joyet 1958; Bachinskii 1985; Lin 1991); bone fractures in children (Alarcon-Herrera 2001) or hip fractures in the elderly (Kurttio 1999; Li 2001). All of these harmful effects are discussed in the NRC (2006) review.

ENVIRONMENTAL JUSTICE

37) LOW-INCOME FAMILIES PENALIZED BY FLUORIDATION.

Those most likely to suffer from poor nutrition, and thus more likely to be more vulnerable to fluoride's toxic effects, are the poor, who unfortunately, are the very people being targeted by new fluoridation programs. While at heightened risk, poor families are least able to afford avoiding fluoride once it is added to the water supply. No financial support is being offered to these families to help them get alternative water supplies or to help pay the costs of treating unsightly cases of dental fluorosis.

38) BLACK AND HISPANIC CHILDREN ARE MORE VULNERABLE TO FLUORIDE'S TOXICITY.

According to the CDC's national survey of dental fluorosis, black and Mexican-American children have significantly higher rates of dental fluorosis than white children (Beltran-Aguilar 2005, Table 23). The recognition that minority children appear to be more vulnerable to toxic effects of fluoride, combined with the

fact that low-income families are less able to avoid drinking fluoridated water, has prompted prominent leaders in the environmental-justice movement to oppose mandatory fluoridation in Georgia. In a statement issued in May 2011, Andrew Young, a colleague of Martin Luther King, Jr., and former Mayor of Atlanta and former US Ambassador to the United Nations, stated:

"I am most deeply concerned for poor families who have babies: if they cannot afford unfluoridated water for their babies' milk formula, do their babies not count? Of course they do. This is an issue of fairness, civil rights, and compassion. We must find better ways to prevent cavities, such as helping those most at risk for cavities obtain access to the services of a dentist…My father was a dentist. I formerly was a strong believer in the benefits of water fluoridation for preventing cavities. But many things that we began to do 50 or more years ago we now no longer do, because we have learned further information that changes our practices and policies. So it is with fluoridation."

39) MINORITIES ARE NOT BEING WARNED ABOUT THEIR VULNERABILITIES TO FLUORIDE.

The CDC is not warning black and Mexican-American children that they have higher rates of dental fluorosis than Caucasian children (see #38). This extra vulnerability may extend to other toxic effects of fluoride. Black Americans have higher rates of lactose intolerance, kidney problems and diabetes, all of which may exacerbate fluoride's toxicity.

40) TOOTH DECAY REFLECTS LOW-INCOME NOT LOW-FLUORIDE INTAKE.

Since dental decay is most concentrated in poor communities, we should be spending our efforts trying to increase the access to dental care for low-income families. The highest rates of tooth decay today can be found in low-income areas that have been fluoridated for many years. The real "Oral Health Crisis" that exists today in the United States, is not a lack of fluoride but poverty and lack of dental insurance. The Surgeon General has estimated that 80% of dentists in the US do not treat children on Medicaid.

THE LARGELY UNTESTED CHEMICALS USED IN FLUORIDATION PROGRAMS

41) THE CHEMICALS USED TO FLUORIDATE WATER ARE NOT PHARMACEUTICAL GRADE.

Instead, they largely come from the wet scrubbing systems of the phosphate fertilizer industry. These chemicals (90% of which are sodium fluorosilicate and fluorosilicic acid), are classified hazardous wastes contaminated with various impurities.

Recent testing by the National Sanitation Foundation suggest that the levels of arsenic in these silicon fluorides are relatively high (up to 1.6 ppb after dilution into public water) and of potential concern (NSF 2000 and Wang 2000). Arsenic is a known human carcinogen for which there is no safe level. This one contaminant alone could be increasing cancer rates–and unnecessarily so.

42) THE SILICON FLUORIDES HAVE NOT BEEN TESTED COMPREHENSIVELY.

The chemical usually tested in animal studies is pharmaceutical grade sodium fluoride, not industrial grade fluorosilicic acid. Proponents claim that once the silicon fluorides have been diluted at the public water works they are completely dissociated to free fluoride ions and hydrated silica and thus there is no need to examine the toxicology of these compounds. However, while a study from the University of Michigan (Finney et al., 2006) showed complete dissociation at neutral pH, in acidic conditions (pH 3) there was a stable complex containing five fluoride ions. Thus the possibility arises that such a complex may be regenerated in the stomach where the pH lies between 1 and 2.

43) THE SILICON FLUORIDES MAY INCREASE LEAD UPTAKE INTO CHILDREN'S BLOOD.

Studies by Masters and Coplan (1999, 2000, 2007), and to a lesser extent Macek (2006), show an association between the use of fluorosilicic acid (and its sodium salt) to fluoridate water and an increased uptake of lead into children's blood. Because of lead's acknowledged ability to damage the

developing brain, this is a very serious finding. Nevertheless, it is being largely ignored by fluoridating countries. This association received some strong biochemical support from an animal study by Sawan et al. (2010) who found that exposure of rats to a combination of fluorosilicic acid and lead in their drinking water increased the uptake of lead into blood some threefold over exposure to lead alone.

44) FLUORIDE MAY LEACH LEAD FROM PIPES, BRASS FITTINGS AND SOLDERED JOINTS.

In tightly controlled laboratory experiments, Maas et al (2007) have shown that fluoridating agents in combination with chlorinating agents such as chloroamine increase the leaching of lead from brass fittings used in plumbing. While proponents may argue about the neurotoxic effects of low levels of fluoride there is no argument that lead at very low levels lowers IQ in children.

CONTINUED PROMOTION OF FLUORIDATION IS UNSCIENTIFIC

45) KEY HEALTH STUDIES HAVE NOT BEEN DONE.

In the January 2008 issue of Scientific American, Professor John Doull, the chairman of the important 2006 National Research Council review, Fluoride in Drinking Water: A Review of EPA's Standards, is quoted as saying:

"What the committee found is that we've gone with the status quo regarding fluoride for many years—for too long really—and now we need to take a fresh look . . . In the scientific community people tend to think this is settled. I mean, when the U.S. surgeon general comes out and says this is one of the top 10 greatest achievements of the 20th century, that's a hard hurdle to get over. But when we looked at the studies that have been done, we found that many of these questions are unsettled and we have much less information than we should, considering how long this [fluoridation] has been going on."

The absence of studies is being used by promoters as meaning the absence of harm. This is an irresponsible position.

46) ENDORSEMENTS DO NOT REPRESENT SCIENTIFIC EVIDENCE.

Many of those promoting fluoridation rely heavily on a list of endorsements. However, the U.S. PHS first endorsed fluoridation in 1950, before one single trial had been completed and before any significant health studies had been published (see chapters 9 and 10 in The Case Against Fluoride for the significance of this PHS endorsement for the future promotion of fluoridation). Many other endorsements swiftly followed with little evidence of any scientific rational for doing so. The continued use of these endorsements has more to do with political science than medical science.

47) REVIEW PANELS HAND-PICKED TO DELIVER A PRO-FLUORIDATION RESULT.

Every so often, particularly when their fluoridation program is under threat, governments of fluoridating countries hand-pick panels to deliver reports that provide the necessary re-endorsement of the practice.

In their recent book Fluoride Wars (2009), which is otherwise slanted toward fluoridation, Alan Freeze and Jay Lehr concede this point when they write:

There is one anti-fluoridationist charge that does have some truth to it. Anti-fluoride forces have always claimed that the many government-sponsored review panels set up over the years to assess the costs and benefits of fluoridation were stacked in favor of fluoridation. A review of the membership of the various panels confirms this charge. The expert committees that put together reports by the American Association for the Advancement of Science in 1941, 1944 and 1954; the National Academy of Sciences in 1951, 1971, 1977 and 1993; the World Health Organization in 1958 and 1970; and the U.S. Public Health Service in 1991 are rife with the names of well-known medical and dental researchers who actively campaigned on behalf of fluoridation or whose research was held in high regard in the pro-fluoridation movement. Membership was interlocking and incestuous.

The most recent examples of these self-fulfilling prophecies have come from the Irish Fluoridation Forum (2002); the National Health and Medical Research Council (NHMRC, 2007) and Health Canada (2008, 2010). The latter used a panel of six experts to review the health literature. Four of the six were pro-fluoridation dentists and the other two had no demonstrated

expertise on fluoride. A notable exception to this trend was the appointment by the U.S. National Research Council of the first balanced panel of experts ever selected to look at fluoride's toxicity in the U.S. This panel of twelve reviewed the US EPA's safe drinking water standards for fluoride. After three and half years the panel concluded in a 507- page report that the safe drinking water standard was not protective of health and a new maximum contaminant level goal (MCLG) should be determined (NRC, 2006). If normal toxicological procedures and appropriate margins of safety were applied to their findings this report should spell an end to water fluoridation. Unfortunately in January of 2011 the US EPA Office of Water made it clear that they would not determine a value for the MCLG that would jeopardize the water fluoridation program (EPA press release, Jan 7, 2011. Once again politics was allowed to trump science.

MORE AND MORE INDEPENDENT SCIENTISTS OPPOSE FLUORIDATION

48) MANY SCIENTISTS OPPOSE FLUORIDATION.

Proponents of fluoridation have maintained for many years— despite the fact that the earliest opponents of fluoridation were biochemists—that the only people opposed to fluoridation are not bona fide scientists. Today, as more and more scientists, doctors, dentists and other professionals, read the primary literature for themselves, rather than relying on self-serving statements from the ADA and the CDC, they are realizing that they and the general public have not been diligently informed by their professional bodies on this subject. As of January 2012, over 4,000 professionals have signed a statement calling for an end to water fluoridation worldwide. This statement and a list of signatories can be found on the website of the Fluoride Action Network. A glimpse of the caliber of those opposing fluoridation can be gleaned by watching the 28-minute video "Professional Perspectives on Water fluoridation" which can be viewed online at the same FAN site.

PROPONENTS' DUBIOUS TACTICS

49) PROPONENTS USUALLY REFUSE TO DEFEND FLUORIDATION IN OPEN DEBATE.

While pro-fluoridation officials continue to promote fluoridation with undiminished fervor, they usually refuse to defend the practice in open public debate – even when challenged to do so by organizations such as the Association for Science in the Public Interest, the American College of Toxicology, or the U.S. EPA (Bryson 2004). According to Dr. Michael Easley, a prominent lobbyist for fluoridation in the US, "Debates give the illusion that a scientific controversy exists when no credible people support the fluorophobics' view" (Easley, 1999). In light of proponents' refusal to debate this issue, Dr. Edward Groth, a Senior Scientist at Consumers Union, observed that, "the political profluoridation stance has evolved into a dogmatic, authoritarian, essentially antiscientific posture, one that discourages open debate of scientific issues" (Martin 1991).

50) PROPONENTS USE VERY DUBIOUS TACTICS TO PROMOTE FLUORIDATION.

Many scientists, doctors and dentists who have spoken out publicly on this issue have been subjected to censorship and intimidation (Martin 1991). Dr. Phyllis Mullenix was fired from her position as Chair of Toxicology at Forsythe Dental Center for publishing her findings on fluoride and the brain (Mullenix 1995); and Dr. William Marcus was fired from the EPA for questioning the government's handling of the NTP's fluoride-cancer study (Bryson 2004). Many dentists and even doctors tell opponents in private that they are opposed to this practice but dare not speak out in public because of peer pressure and the fear of recriminations. Tactics like this would not be necessary if those promoting fluoridation were on secure scientific and ethical grounds.

CONCLUSION

When it comes to controversies surrounding toxic chemicals, vested interests traditionally do their very best to discount animal studies and quibble with epidemiological findings. In the past, political pressures have led government agencies to drag their feet on regulating asbestos, benzene, DDT, PCBs, tetraethyl lead, tobacco and dioxins. With fluoridation we have had a sixty-year delay. Unfortunately, because government officials and dental leaders have put so much of their credibility on the line defending fluoridation, and because of the huge liabilities waiting in the wings if they admit that fluoridation has caused an increase in hip fracture, arthritis, bone cancer, brain disorders or thyroid problems, it will be very difficult for them to speak honestly and openly about the issue. But they must, not only to protect millions of people from unnecessary harm, but to protect the notion that, at its core, public health policy must be based on sound science, not political expediency. They have a tool with which to do this: it's called the Precautionary Principle. Simply put, this says: if in doubt leave it out. This is what most European countries have done and their children's teeth have not suffered, while their public's trust has been strengthened.

Just how much doubt is needed on just one of the health concerns identified above, to override a benefit, which when quantified in the largest survey ever conducted in the US, amounts to less than one tooth surface (out of 128) in a child's mouth?

While fluoridation may not be the greatest environmental health threat, it is one of the easiest to end. It is as easy as turning off a spigot in the public water works. But to turn off that spigot takes political will and to get that we need masses more people informed and organized. Please get these 50 reasons to all your friends and encourage them to get fluoride out of their community and to help ban this practice worldwide.

POSTSCRIPT

Further arguments against fluoridation, can be viewed at http://fluoridealert.org and in the book The Case Against Fluoridation (Chelsea Green, 2010). Arguments for fluoridation can be found at http://www.ada.org

PUBLICATION HISTORY OF THE 50 REASONS

The 50 Reasons were first compiled by Paul Connett and presented in person to the Irish Fluoridation Forum in October 2000. The document was refined in 2004 and published in Medical Veritas. In the introduction to the 2004 version it was explained that after over four years the Irish authorities had not been able to muster a response to the 50 Reasons, despite agreeing to do so in 2000. Eventually, an anonymous, incomplete and superficial response was posted on the Irish Department of Health and Children's website (see this response and addendum at :http://www.dohc.ie/other_health_issues/dental_research/. Paul Connett's comprehensive response to this response can be accessed at http://fluoridealert.org/50reasons.ireland.pdf. We learned on August 7, 2011 that this governmental response was prepared by an external contractor at a cost to the Irish taxpayers' of over 30,000 Euros.

Since 2004, there have been many major scientific developments including the publication of the U.S. National Research Council report (NRC, 2006); the publication of Bassin's study on Osteosarcoma (Bassin 2006), and many more studies of fluoride's interaction with the brain, that necessitated a major update of the 50 Reasons in August 2011. This update was made with the generous assistance of James Beck, MD, PhD, Michael Connett, JD, Hardy Limeback, DDS, PhD, David McRae and Spedding Micklem, D.Phil. Additional developments in 2012, including FAN's translation of over 20 Chinese studies on fluoride toxicity and publication of the Harvard team's meta-review of fluoride and IQ (Choi 2012), warranted a further update in August 2012, with the extremely helpful assistance of my son, Michael Connett.

All cited references in this article can be found at the Fluoride Action Network's Online Bibliography, available at:

WWW.FLUORIDEALERT.ORG/RESEARCHERS/FAN-BIBLIOGRAPHY/

Jeff Landry
GOVERNOR

Michael Harrington, MBA, MA
SECRETARY

State of Louisiana

Louisiana Department of Health
Office of the Surgeon General

Re: M.D.

To Whom it may concern,

Please allow this letter to serve as an exemption from your hospital's influenza vaccination requirement for Dr.

Evidence proving efficacy in prevention of infection, transmission, hospitalization, or death is far from conclusive historically and represents little more than a guess as we look toward upcoming seasonal strains. Risks associated with influenza vaccination are real and well established. Where there is risk there must be choice. In the case of Dr. risks of influenza vaccination outweigh benefits and there should be no further coercion to comply.

Masking during flu season is apparently offered as an alternative to vaccination. Conclusive evidence has not shown masks to be effective against transmission of respiratory viruses. See attached Cochrane review article for reference. Masking is therefore merely a form of punitive coercion aimed at achieving compliance. Please also allow Dr. to be exempted from compulsory masking.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD006207.pub6/full

The Surgeon General's office intends to serve as an advocate for informed consent and restoration of the doctor-patient relationship as the core of medical decision making. We appreciate your hospital's cooperation with that effort.

Please feel free to contact us directly if further information is needed.

Ralph L. Abraham M.D.
Surgeon General

Wyche T. Coleman III, M.D
Deputy Surgeon General

Review Article

Pharmaceutical product recall and educated hesitancy towards new drugs and novel vaccines

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Peter Rhodes[1,2] **and Peter I Parry**[3,4]

Abstract

Background: Of many pharmaceutical products launched for the benefit of humanity, a significant number have had to be recalled from the marketplace due to adverse events. A systematic review found market recalls for 462 pharmaceutical products between 1953 and 2013. In our current and remarkable period of medical history, excess mortality figures are high in many countries. Yet these statistics receive limited attention, often ignored or dismissed by mainstream news outlets. This excess mortality may include adverse effects caused by novel pharmaceutical agents that use gene-code technology.

Objective: To examine key pharmaceutical product withdrawals and derive lessons that inform the current use of gene-based COVID-19 vaccines.

Methods: Selective narrative review of historical pharmaceutical recalls and comparative issues with recent COVID-19 vaccines.

Results: Parallels with past drug withdrawals and gene-based vaccines include distortion of clinical trial data, with critical adverse event data absent from high-impact journal publications. Delayed regulatory action on pharmacovigilance data to trigger market withdrawal occurred with Vioxx (rofecoxib) and is apparent with the gene-based COVID-19 vaccines.

Conclusion: Public health requires access to raw clinical trial data, improved transparency from corporations and heightened, active pharmacovigilance worldwide.

Keywords

conflict of interest, COVID-19, clinical trials, drug-related side effects and adverse reactions, messenger ribonucleic acid vaccines, pharmaceutical industry, pharmacovigilance, safety-based drug recalls

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All pharmaceutical products are continuously experimental, observed and tracked by pharmacovigilance systems worldwide.[1]

Introduction

Strong science, characterised by open mindedness, objectivity, curiosity and freedom of debate, can be corrupted by capitalist opportunism, deception, political ideology and censorship. Regulatory protections are required for good science to flourish. Corporate enthusiasm and authoritarian policy directives, such as vaccine mandates, must be balanced with humane medical ethics and protection of individual autonomy.

[1]Gonville & Caius College, University of Cambridge, Cambridge, UK
[2]Anaesthesia and Intensive Care Medicine, Brisbane, QLD, Australia
[3]Childrens Health Queensland Clinical Unit, Faculty of Medicine, University of Queensland, South Brisbane, QLD, Australia
[4]Department of Psychiatry, College of Medicine and Public Health, Flinders University, Bedford Park, SA, Australia

Corresponding author:
Peter Rhodes, Anaesthesia and Intensive Care Medicine (retired), 4/11 Rosecliffe Street, Highgate Hill, QLD 4101, Australia.
Email: drpeterrhodes@hotmail.com

The global pharmaceutical industry has grown in recent decades and now represents one of the most valuable in the world. Revenue of the worldwide market in just 2 decades has risen from 390 billion USD (2001) to 1482 billion USD (2022).[2]

New additions to the global marketplace appear with entrepreneurial enthusiasm. Yet withdrawals of these products are also significant. In the last 7 decades, from 1953 onwards, more than 462 medicinal products have had to be recalled from sale because of adverse drug effects that frequently include fatalities. The median interval between the first reported adverse reaction and the year of first withdrawal for a drug is 6 years (IQR, 1–15).[3]

Globally, whether drugs are recalled or not, pharmaceutical industry violations have become a multibillion-dollar industry of litigation, legal fees, and court penalties. Some of the most impressive corporate criminal trials include[4]:

- **Cardinal Health, McKesson, AmerisourceBergen, Johnson & Johnson (2022)**, inappropriate opioid prescription, addiction crisis, settlement of $26 billion USD;
- **GlaxoSmithKline (2012)**, unlawful promotion of Paxil (paroxetine), Wellbutrin (buproprion) and Avandia (rosiglitazone), and failure to report safety information, settlement of $3 billion USD;
- **Eli Lilly, Takeda Pharmaceuticals (2015)**, concealment of data on carcinogenicity of Actos (pioglitazone), settlement of $2.4 billion USD;
- **Pfizer (2009)**, false promotion of Bextra (valdecoxib) tablets, Geodon (ziprasidone) capsules, Lyrica (pregabalin), and Zyvox (linezolid), payment of financial kickbacks, submission of false claims to government, illegal drug promotion, settlement of $2.3 billion USD;
- **Johnson & Johnson (2013)**, misbrand of antipsychotic drug Risperdal (risperidone), payment of financial kickbacks, settlement of $2.2 billion USD.

Direct to public commercials in the USA for legal support are now widespread, e.g.[4]:

> "Call a Dangerous Drug Attorney at O'Connor, Acciani & Levy.
>
> If you believe you were harmed after using a certain pharmaceutical product, call a skilled dangerous drug attorney for help in starting a personal injury claim."

In this selective narrative review, our goal is to consider some of the milestones in drug recall from the market, litigation for, and republication of, hidden data, and potential lessons that may be learnt. We assess recall of various pharmaceutical agents, proven over time to be monumental events. In particular, we focus on the cases of Merck's Vioxx (rofecoxib), and the new gene-based COVID-19 vaccines.

Results

Diethylstilbestrol (DES)

Marketed widely in the 1950s and 1960s, diethylstilbestrol (DES) (Eli Lilly), prescribed by the medical profession for prevention of miscarriage, led to extensive harm that would prove fatal for some and would span generations. Supplied to millions of pregnant women over 3 decades, DES became the first identified cause of "prenatal drug-induced cancer in humans". The drug was recalled in 1971. The full intergenerational impact of these prescriptions is still not known.[5]

Thalidomide

Thalidomide is one of the saddest chapters in pharmaceutical history and an example of how premature safety claims can have tragic consequences. Created as a sedative and marketed in Germany in 1957 by Chemie Grünenthal, thalidomide would soon be launched in the UK (Distillers, UK), and many other countries would follow. At this stage, the first thalidomide-affected baby had already been born in Germany, 25 December 1956, to a Chemie Grünenthal employee. By 1958, thalidomide was licensed and promoted in the UK as a "wonder drug" to treat headaches, insomnia, and nausea in pregnant women – advertisements emphasised safety, with catch phrases such as "non-toxic" and "no known toxicity".

The first publication to link thalidomide and birth defects appeared in 1961 in *The Lancet*, as a letter from an Australian, William McBride.[6] This same year the drug was formally withdrawn in Germany and in the UK, the Thalidomide Society was established in the UK, and efforts began to secure compensation for victims. In 1968, Chemie Grünenthal was brought to trial in Germany, charged with intent to commit bodily harm and involuntary manslaughter, but in 1970 this trial was ended prematurely by the German government, who stated that it was "not in the public interest".[7]

Efforts have continued in the UK to secure compensation from the 1970s through to the present. It was only on 29 November 2023 that the Australian Prime Minister announced a "formal national apology to all Australians impacted by the Thalidomide Tragedy", more than half a century on from the earliest harms.[8]

Through the diligent work of FDA scientist Frances Kelsey, who demanded further safety trials prior to market authorisation, thalidomide was never approved for release in the USA. She protected an entire nation.[9]

Paroxetine

The Selective Serotonin Reuptake Inhibitor (SSRI) antidepressant, paroxetine, became a very successful commercial product for SmithKlineBeecham (SKB) (later GlaxoSmithKline, GSK). In the late 1990s, the company conducted two randomised, controlled trials in adolescents with depression (Study 329 & Study 377). Company documents, subpoenaed through litigation, reported that Study 377 "failed to demonstrate any separation from placebo" and consequently the company had "no plans to publish data from Study 377". Study 329 showed "trends in efficacy" but the differentiation from placebo "was not statistically significant".[10] This Study 329 was ghost written and then published by Keller and 21 co-authors in 2001, with the conclusion that paroxetine was "generally well tolerated and effective" for adolescents with depression.[11] Although SKB/GSK decided not to present the studies' data to the FDA for a label change to treat adolescent depression, they used the Keller et al. publication to promote off-label prescriptions for depressed teens. Later, independent researchers gained access to raw data from Study 329 and found increased suicidality and no significant efficacy.[12] Despite calls for retraction of the original Study 329 publication, the *Journal of the American Academy of Child and Adolescent Psychiatry (JAACAP)* has refused to do so.[13]

GSK suppressed negative data about their drug paroxetine and effects on depression and suicide. An internal GSK document advised staff to withhold data that indicated paroxetine had no beneficial effect in adolescents.[14] In 2012, GSK pleaded guilty to fraud allegations and failure to report safety data, with payment of $3 billion in criminal fines, the largest fraud settlement in US history at the time.[15]

There have been further disputes over the increased suicidality caused by SSRIs in adolescents and young adults, with calls to remove the FDA Black Box label. However, both Study 329 data re-analysis[13] and separate further data support continuation.[16]

This GSK paroxetine chapter is by no means an isolated case of hidden data. In 2015, Eli-Lilly and Takeda Pharmaceuticals were fined $2.4 billion USD for concealment of the carcinogenic effects of pioglitazone (Actos).[17]

Avandia (rosiglitazone)

Avandia (rosiglitazone) gained FDA approval for management of diabetes in May 1999 and was widely prescribed for control of blood glucose, until it was shown to increase risk of myocardial infarction by 43% and increase risk of death from cardiovascular causes by 64%.[18] In May 2007, Steven Nissen of the Cleveland Clinic published controlled trial data that showed, in the rosiglitazone group, as compared with control, the odds ratio for myocardial infarction was 1.43 (95% confidence interval (CI), 1.03 to 1.98; $p = 0.03$), and the odds ratio for death from cardiovascular causes was 1.64 (95% CI, 0.98 to 2.74; $p = 0.06$).[19]

In July 2007, a panel of FDA advisers voted 22 to 1 against removal of Avandia from the marketplace. As late as 2009, GSK continued with promotion of Avandia as "safe and free from cardiovascular side effects".[20] In contrast, by February 2010, a US senate finance committee was able to conclude that GSK had "full knowledge of the cardiac risks of Avandia in late 2004 or early 2005". David Graham, FDA scientist, has estimated combined US heart attacks, strokes and deaths caused by Avandia to be in the order of 100,000 events.[21] The drug was removed from the European market in September 2010, based on cardiovascular risks, and remains banned to this day.

Pursuit of surrogate end points can be dangerous, exemplified here with a focal target of blood glucose control, yet accompanied by significant adverse events.

While such corporate products and medical prescriptions as diethylstilbestrol, thalidomide, paroxetine and rosiglitazone are now infamous chapters in medical history, still greater events loom over more recent history, and we consider two of these, Merck's Vioxx (rofecoxib) scandal, and the roll out of gene-based COVID-19 vaccines.

Vioxx (rofecoxib)

Developed by Merck, the cyclooxygenase-2 (COX 2) inhibitor Vioxx (rofecoxib) marketed as a non-steroidal anti-inflammatory drug (NSAID) for pain relief in 1999, obtained FDA approval (21 May 1999) based on equivalence to other

NSAIDs in short term use. Efforts to explore long term value in rheumatoid arthritis further supported sales, with fewer gastrointestinal side effects when compared with typical NSAID naproxen.[22]

In this VIGOR paper,[22] Merck concealed adverse cardiovascular events in the Vioxx arm of the study that would prove to be a serious statistical signal. Just prior to publication, Merck informed the FDA of three adverse cardiovascular events, published on an FDA website, but *The New England Journal of Medicine (NEJM)* article was neither retracted nor corrected.

The full VIGOR data unmasked high rates of cardiovascular events with Vioxx (rofecoxib) compared to naproxen, with a relative risk of 2.38 (95% CI 1.39–4.00) for rofecoxib against naproxen over a 12-month study period.[23] The time lag between initial FDA approval and the appearance of this more complete VIGOR trial data in print was over 18 months.

Initial responses to this data from Merck included claims that naproxen had a protective effect against heart attacks and strokes, that was not possessed by Vioxx, and that the increased cardiovascular risks seen with Vioxx occurred only in people with known cardiovascular disease.[24] This was later found to be untrue, once data for healthy individuals who had suffered harm on Vioxx had been uncovered.

Merck tried to influence lead American physicians with support and finance for research, and they defamed, withdrew support, and tried to discredit or "neutralise" those who failed to promote use of Vioxx, a matter uncovered by the Federal Court in Melbourne, Australia.[25] In contrast, the Chair of the Study Data and Safety Board (SDSB) for the study, Michael Weinblatt, owned $72,000 in Merck stock and was on a $60,000 contract for 12 days' work for the company.[26]

Internal Merck emails are now known to have shown as early as 18 November 1999 (unblinded minutes), that an interim safety analysis of VIGOR showed excess deaths and cardiovascular adverse experiences – 79 cardiac events for rofecoxib compared with 41 for the control group on a traditional NSAID, naproxen.[26,27] Yet Merck made a press release on 22 May 2001, entitled "*Merck Reconfirms Favourable Cardiovascular Safety of Vioxx*". Merck even created a "fake journal" with the medical publisher Elsevier: The *Australasian Journal of Bone and Joint Medicine,* with six issues between 2002 and 2005, that collated articles favourable to Merck's drugs Vioxx and Fosamax.[28]

The FDA appears to have been complicit with Merck in early suppression of the adverse event data of VIGOR. Eventually the FDA did instruct Merck (April 11th, 2002) to include a precaution about cardiovascular risks in their package insert.[24] Dr David Graham, an FDA scientist in its Office of Drug Safety, revealed this interplay in his testimony to the US Senate (below).

Vioxx remained on the market until the completion of the APPROVE study in 2004. The intention was to promote use of Vioxx to treat polyps of the colon. But again, the drug demonstrated at least double the cardiovascular risk compared with placebo, this time in a patient population considered to be at low risk of cardiovascular disease.[29]

Merck announced withdrawal of Vioxx on 30 September 2004, the largest prescription drug recall in history to date.

Over 20 million people in the US are believed to have taken the drug, of whom an estimated 88,000 to 139,000 suffered myocardial infarctions, with 30–40% fatality rate (testimony of Dr Graham to the US Senate).[30] His figures on estimated cardiac arrests were also published in *The Lancet*, despite opposition from the FDA.[31] Dr Graham further testified to the Senate that conflicts of interest at the FDA had delayed the Vioxx recall.[32] Discovery documents in litigation reveal corporate pharma may conceal data early, at any cost to achieve market growth.[33,34] Here the FDA appeared complicit and slow to withdraw the product.[24,35] Published in the *NEJM*, prominent cardiologist Eric Topol included strokes as well as myocardial infarctions to estimate 160,000 events per 10 million people prescribed Vioxx, and he noted a global cohort of up to 80 million had been prescribed Vioxx.[24]

By August 2005, 13,000 class action lawsuits had been filed against Merck. By November 2007, Merck had created a settlement fund of $4.85 billion USD, the largest ever in US history at the time. Merck agreed to compensate victims in exchange for a no-fault agreement – specifically, no legal admission of fault. Yet payment of $4.85 billion USD in compensation to claimants could clearly be interpreted as an admission of fault.[25,26]

When the Vioxx scandal broke, Merck had a capital market value of between $40 and $50 billion USD. Despite the greatest drug scandal in the world, enormous fines and atrocious damage to image, Merck has continued to grow in the last 2 decades and has increased its value six-fold to over $300 billion USD.

COVID-19 gene-based vaccines

Initially marketed December 2020, as Emergency Use Authorisation (EUA) in the USA, and provisional authorisation in Australia and other nations, the gene-based COVID-19 vaccines of modified mRNA type, (Pfizer-BioNTech's BNT162b2, Moderna's mRNA-1273) and viral-vector-DNA type (AstraZeneca's ChAdOx1-S, Janssen's Ad26.COV2.S, Gamaleya's Sputnik V) have constituted the majority of over 13 billion doses of all COVID-19 vaccines.[36–41] In contrast, COVID-19 vaccines that employ traditional well-tested inactivated virus or

recombinant protein antigen-based technologies have been utilised mainly in a few non-Western nations (e.g., Bharat Biotech's Covaxin, Sinovac's CoronaVac, Cinnagen-Vaxine's SpikoGen, Cuba's Genetic Engineering and Biotechnology Centre's Abdala).[42]

Purposed for protection against transmission of the SARS-CoV-2 virus and reduced disease severity, official sales narratives included – "safe and effective", and "millions of lives saved". Indications of serious harm appeared from 2021 with record high adverse event reports to pharmacovigilance. These included suspected death reports as indicated by VAERS data[43] (Figure 1), peer-reviewed VAERS and EudraVigilance data,[44] excess mortality above expected from collation of official death statistics by Our World in Data[45] and insurance data for excess mortality and disability[46] correlated with COVID-19 vaccination. Montano (2022) compared COVID-19 vaccines (Janssen, Moderna, Pfizer-BioNTech) with influenza vaccines, and found extremely high elevated relative risk for serious and fatal adverse events across most organ systems [[44], in Table 3b]. Excess mortality is defined as mortality above normal background rates at ourworldindata.org which is under the jurisdiction of Oxford University, UK.

Market restrictions on recommendations began September 2022, with COVID-19 booster vaccines generally limited to over age 50 and the vulnerable in Nordic nations and Switzerland, e.g., the Danish Health Authority declared it was "no longer possible … for children and adolescents aged under 18" to get the COVID-19 vaccine "from 1 September 2022".[47] By contrast, the USA, Canada, Australia and some other nations still market for children. The key failure is to have mandated injections in young and healthy adults; these mandates correlate with excess mortality.[44–46] A recent peer-reviewed study in *BMJ Public Health* on excess mortality from 47 Western nations, finds over three million excess deaths from January 2020 to December 2022. Notably, when stratified by year, the highest number of excess deaths was reported in 2021, the year in which mass vaccination began. Especially in late 2021 which saw imposition of vaccine mandates in many nations (first graph p. 5).[45] Additional lessons potentially are that rushed "warp speed" development of novel technologies is unwise; narrative and groupthink can distort judgement; suppression of clinical trial data is harmful; heightened active pharmacovigilance must be encouraged.[48–50]

Use of the term "vaccine" for novel experimental agents that deploy gene codes may convey a false sense of assurance in the absence of supportive data and thus may mislead. In pharmacological design terms, these products are "pro-drugs".[51] They must enter cells and undergo translation of genetic code before intended outcomes

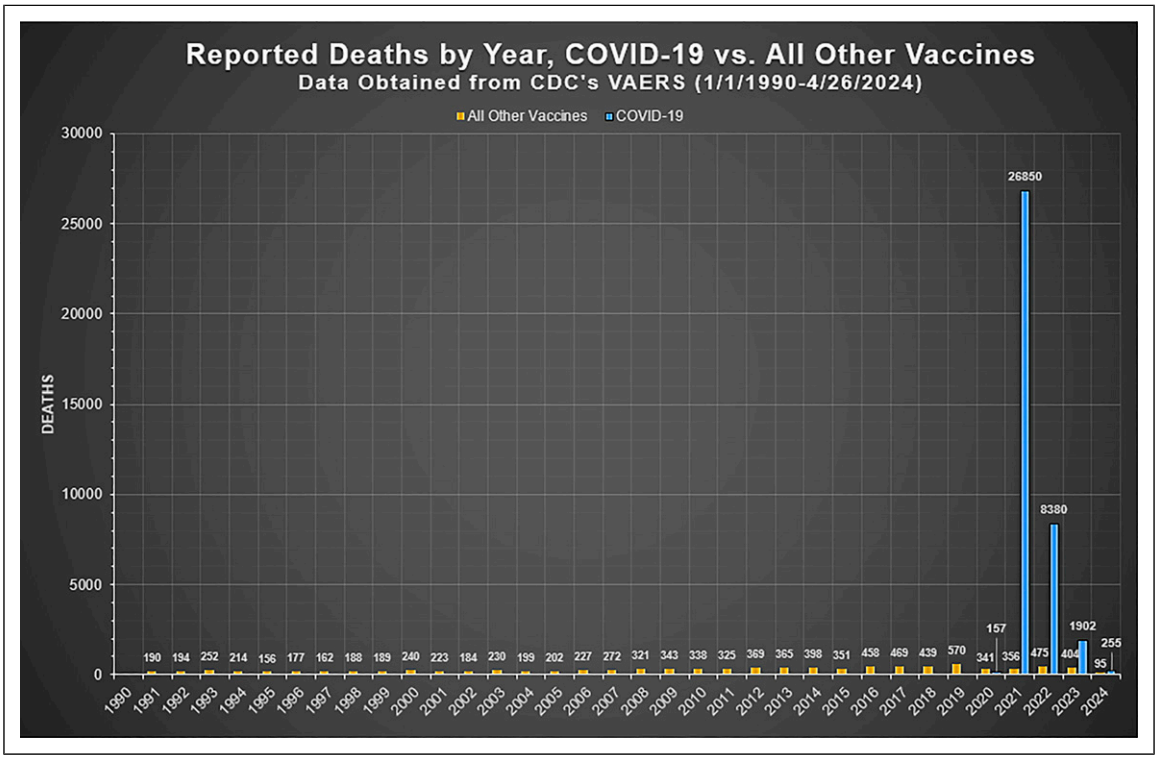

Figure 1. Reported suspected deaths from vaccines to VAERS since 1990 comparing all other vaccines combined with COVID-19 vaccines. From VAERS Analysis[43] (with permission).

unfold[52] (Figure 2), and in this sense they operate as "synthetic viruses".[53] Unintended consequences are thus possible.[53–57]

A systematic review of the peer-reviewed literature: "Serious harms of the COVID-19 vaccines: a systematic review" by Gotzsche and Demasi (2024) [[58] preprint] found that with the notable exception of Fraiman et al.,[59] "most studies were of poor quality" (abstract) and used methodologies such that "serious harms are vastly underreported" (p. 7). They conclude:

> Adenovirus vector vaccines increased the risk of venous thrombosis and thrombocytopenia, and the mRNA-based vaccines increased the risk of myocarditis, … serious neurological harms (occurred), which are likely due to autoimmune reaction. … Severe harms were underreported in the randomised trials [published in the NEJM].

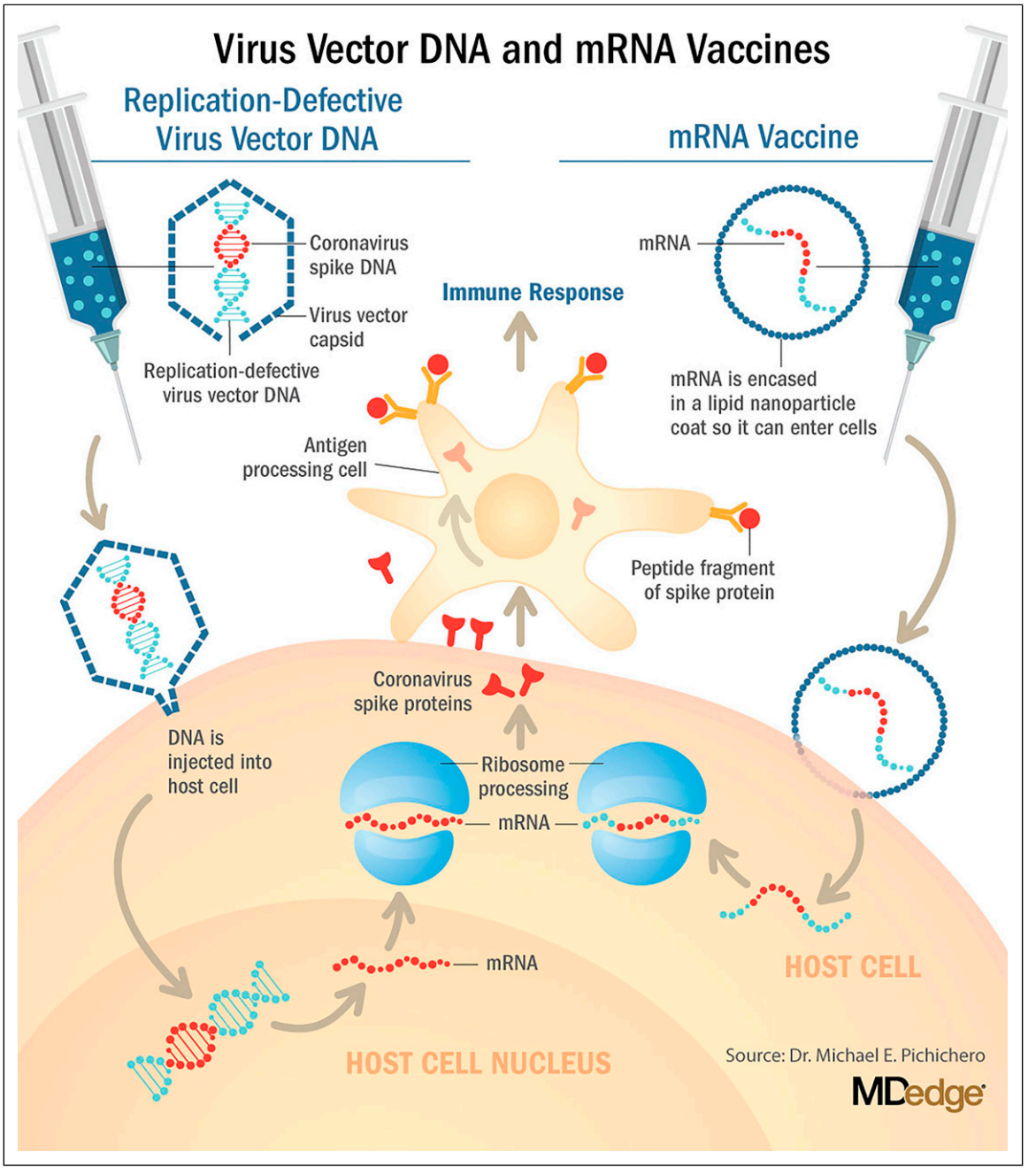

Figure 2. COVID-19 virus vector DNA and mRNA vaccines: mechanism of action. From Pichichero ME (with permission).[51]

As authorisation and promotion of the COVID-19 mRNA vaccines continue, the authors call for randomised trials of COVID-19 booster doses in high-risk groups that thoroughly examine serious adverse events.[59] The authors also state that "Authorities … do not consider that the balance between benefits and harms becomes negative in low-risk groups such as children [and those with natural immunity]" (abstract). This point has been well made by Bardosh et al. (2024)[60] who argued against universal vaccine mandates and noted that based on the Pfizer-BioNTech vaccine booster trial data,[61] to prevent one COVID-19 hospitalisation, 18.5 students would suffer a serious adverse event.[60]

These products are novel and experimental, whether modified mRNA gene codes encased in lipid nanoparticles (LNP) (Pfizer-BioNTech and Moderna), or viral-vector-DNA gene codes encased in adenovirus shells (AstraZeneca, Janssen, Sputnik V). These gene sequences produce the spike protein antigen of the SARS-CoV-2 virus, which must be extruded from the cell surface as foreign protein to stimulate an immune response. This is a new mechanism for public vaccination, completely distinct from traditional vaccine technologies.

Moreover, rigorous assessment of long-term safety of these experimental gene-based products has been effectively sabotaged by the early dissolution of the placebo arm in phase III clinical trials.[62] Despite this, the interim and extensive publication of these abbreviated clinical trials in the *NEJM* has been used to support marketing and the public health message of "safe and effective".

In terms of efficacy, failure to prevent infection or transmission of the COVID-19 variants[63–66] eventually led the US Centers for Disease Control and Prevention (CDC) to reinvent their definition for "vaccine" as no longer the provision of "immunity," but as "protection" against disease severity[67,68] – now a narrative challenged by more recent data. Promotion of the belief that millions of lives would be saved by these agents has been based on hypothetical, predictive epidemiological models which have a track record of miscalculation.[46,53,73] Official data from New South Wales state in Australia by late 2022 during the omicron variant wave did not concord with the message that these agents prevent serious disease or death, and even suggested the opposite.[53]

For the wealthy western nations who have utilised these novel agents in particular, the haste and scale of development, production, distribution, and administration is unprecedented.[69] Yet haste, especially at "warp speed", should be alien to good medical science. It is likely that novel technology, haste in vaccine development and mass production all contributed to the reported phenomenon of "batch toxicity" based on official pharmacovigilance data.[70]

Key failures – Coercion and mandates, ridicule of educated hesitancy

Perhaps the greatest failure of gene-based vaccine use is the political act to mandate therapy. Mandates are relatively rare in medical history. Vaccine passports to engage in normal life resemble measures under totalitarian rule. The deadlines for COVID-19 vaccine mandate compliance correlated closely with excess morbidity and mortality.[1,44,46]

Given the novel nature of gene-based COVID-19 vaccines, it may be no surprise that "vaccine hesitancy" among those with tertiary qualifications was highest with PhD doctorates (January–April 2021, 14.6%),[71] and among healthcare workers was highest for "emergency medical technicians/paramedics" (April–May 2021, 45.4%).[72] Reflective of both research and coalface clinical experience. This could thus be referred to as "educated hesitancy", found in a cohort most familiar with the imperfections of corporate sponsorship, market authorisation and medical literature, and a cohort on the frontline. Educated hesitancy towards these products has been ridiculed. It is particularly tragic that mandates have been applied to the young, fit, and healthy in our workforce, at minimal risk from the coronavirus itself, some of whom have paid the ultimate price with loss of life.[43–46] In fact, at a global level the median pre-vaccination infection fatality rate (IFR) was estimated at 0.03% for the 0 – 59-year-old population, while for children aged 0–19 years the median IFR was 0.0003%.[73] These observations indicate that children and adolescents are essentially at zero risk of COVID-19 mortality.

The limitations in the peer-reviewed literature to identify and quantify the harms of the gene-based COVID-19 vaccines [58, preprint], means greater consideration must be given to analyses of public datasets of passive and active pharmacovigilance and insurance and actuarial data. A graph of Western Australian Vaccine Safety Surveillance (WAVSS) (Figure 3 in our prior paper)[1] illustrates this, and it should be noted that due to remote geography and border closures, the state of Western Australia was essentially free of the SARS-CoV-2 virus in 2021.[1]

Similarly, a strong temporal correlation was evident between the imposition of COVID-19 vaccine mandates for employment in the third quarter of 2021 in the USA and high excess mortality for working age (25–64 years old) Americans, in the data collated by the US Society of Actuaries Research Institute, as shown in the table from *Cause Unknown* by Edward Dowd[46] (p. 80) (Figure 3).

With Vioxx, the key publication of the VIGOR clinical trial in the *NEJM* excluded three subjects with severe cardiovascular adverse events, a data suppression that obscured the true risk. Similarly with the phase III clinical

Table 5.7

EXCESS MORTALITY BY DETAILED AGE BAND

Age	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	4/20-3/22	% COVID	% Non-COVID	% Count
0-24	116%	124%	104%	101%	119%	127%	110%	91%	111%	3.3%	8.1%	2%
25-34	127%	132%	121%	118%	131%	178%	131%	125%	133%	13.3%	19.6%	2%
35-44	123%	134%	128%	129%	133%	200%	156%	136%	142%	23.1%	19.2%	4%
45-54	123%	127%	129%	133%	119%	180%	151%	143%	138%	27.4%	10.8%	9%
55-64	117%	123%	130%	130%	114%	153%	141%	137%	131%	24.0%	6.7%	18%
65-74	117%	115%	133%	130%	108%	131%	125%	122%	122%	18.6%	3.9%	17%
75-84	114%	114%	133%	123%	106%	119%	121%	121%	119%	14.0%	4.6%	20%
85+	112%	103%	124%	111%	92%	104%	105%	103%	107%	10.3%	-3.5%	27%
All[11]	116%	115%	129%	123%	107%	134%	126%	122%	121%	17.1%	4.3%	100%

Figure 3. Table 5.7 Excess mortality by detailed age band. From p.80 Dowd E (2022)[46] (with permission).

trials for the Pfizer, AstraZeneca and Moderna COVID-19 vaccines it is now known that three subjects with serious adverse events were excluded [[49,58] preprint,[74]] from key papers[36,37,39] in the *NEJM*, which influenced health policy globally. These omissions occurred in the context of a non-random excess of 251 exclusions from the vaccine arm compared to placebo arm (311 vs 60) in the Pfizer clinical trial[75] and reported unblinding at one of the clinical trial sites.[76]

Two phase III clinical trials subjects who suffered severe adverse events from the vaccine arms of the Pfizer-BioNTech trial and the AstraZeneca trial [[49,58] preprint], and one from the Moderna trial[74] came forward to say their adverse event data was not published in the *NEJM* peer-reviewed papers of the clinical trials, and likely not reported to the FDA either. In the case of AstraZeneca, this was despite appeals to the journal.[49] A further case of a 12-year-old in the adolescent Pfizer COVID-19 clinical trial, suffered permanent severe polyneuropathy and is wheelchair bound [[58] preprint,[77,78]], is recorded in the *NEJM* paper as "functional abdominal pain".

Additionally, the Pfizer-BioNTech phase III trial report submitted to the FDA for Emergency Use Authorisation listed 2 deaths in the mRNA vaccine arm and 4 deaths in the placebo arm. However, documents released under court order revealed a further 4 deaths in the vaccine arm and 1 death in the placebo arm, to give the total number of deaths before the data cut-off date actually 11 (6 vaccine, 5 placebo) versus the 6 disclosed. Closer examination of relevant documentation available for each patient showed a pattern of delay in death notification, a clear violation of trial protocols and legal requirements.[48] By the end of the truncated Pfizer phase III trial there were 21 deaths in the vaccine arm and 17 in the placebo arm and the difference was accounted for by cardiovascular mortality.

Discussion

In this selective narrative review, we have chosen some of the most well-known drug recalls and data suppression scandals. We have sought insights from these events that may help better appraise the current gene-based COVID-19 vaccines, which have together formed the largest ever launch of novel pharmaceutical product in history.

Medical research

Quality of research in medical science is problematic. The scientific "replication crisis", which is also a publication crisis, has been studied, debated and recognised in surveys of scientists[79,80] ever since Ioannidis' highly cited 2005 paper asserted that at least half the published medical literature may simply be wrong.[81] The crisis rests on pressure to publish, failure to publish negative and/or unfavourable data, lack of data transparency, poor methodological design of studies, statistical errors, carelessness, inexperience of peer reviewers and editors, commercial interest, ideological biases, failure to declare conflicts of interest and fraud.[81,82] Tanver et al. noted lack of data transparency in the COVID-19 vaccine trials[83] and cast doubt on their use in public health, as did senior and chief-editors of the *BMJ*.[50]

Distorted data, particularly due to commercial bias, is regularly published in medical journals. A Cochrane Review meta-analysis found odds ratios exist for a *sponsored* drug trial to find results, (OR 2.05) and provide conclusions (OR 2.69) in favour of the drug versus an *independent* trial for the same agent.[84]

Corporate integrity and data transparency

Concerns exist related to data transparency, access to raw data, and the potential for hidden data, deleted data or indeed failure to record data.[10,12,15,24,30,33,34,49,50,74–90] The track record of the pharmaceutical industry in these areas has been weak. Internal industry documents released after criminal convictions of the companies concerned, reveal a systemic pattern geared towards "marketing-based medicine" that is at odds with "evidence-based medicine".[33]

Among many examples, an internal AstraZeneca email discussed "*burial*" of data from four clinical trials. We quote John J A Tumas, Publications Manager, AstraZeneca, 6 December 1999,

> There is pressure from outside the industry to provide access to all data from clinical trials conducted by the industry; thus far we have buried trials 15, 31, 56 and are now considering COSTAR.[90]

Illusion of evidence-based medicine

Jureidini and McHenry, in a prominent article in the *BMJ* asserted that Medicine has been "corrupted by corporate interests, failed regulation and commercialisation of academia", to cause an "illusion of evidence-based medicine".[85] The evidence base for clinical and public health decisions has long been corrupted, in the view of former chief-editors of *The Lancet*,[91] the *BMJ*[86] and *NEJM*.[87] Peer review cannot possibly police commercial and ideological conflicts of interest.

Pharmaceutical companies, publication and statistics

Manipulation of statistics in the medical literature has been lamented.[18] Widespread promotion of relative rather than absolute risk and use of surrogate endpoints are examples.[18,75]

Concerns exist over the transparency of COVID-19 mRNA vaccine trial data. Available figures from Pfizer and Moderna trials listed at clinicaltrials.gov have been evaluated (NCT04368728 and NCT04470427). As originally published in *NEJM*, the Pfizer and Moderna mRNA COVID-19 vaccine interim phase III clinical trial reports suggested a favourable risk/benefit ratio. Based on exactly the same data, Fraiman and colleagues publish in *Vaccine* that:

> mRNA COVID-19 vaccines were associated with an excess risk of serious adverse events of special interest of 10.1 and 15.1 per 10,000 vaccinated over placebo baselines of 17.6 and 42.2 (95% CI −0.4 to 20.6 and −3.6–33.8), respectively.

From which they conclude a need for formal risk-benefit analyses.[59]

The FDA has been publicly criticised for their slow response to follow up potential increases in serious adverse events in elderly people related to Pfizer's mRNA COVID-19 vaccine [[58] preprint,[92,93]].

There are even indications that initial clinical trial work, published in the *NEJM*, may have been performed with mRNA products that differed from those eventually mass-produced. The clinical trial mRNA gene codes were created by PCR "Process 1" technology, but the vials for the public were produced by "Process 2" E. coli plasmid DNA manufacture, which has led to plasmid DNA contamination of vaccine vials.[94]

Beyond any clinical trial data and the process required to obtain initial approval from regulatory authorities, is the absolutely vital need to recognise that all therapeutic agents must be continuously monitored and subject to the red flags of vigilant surveillance.

Lack of recognition of pharmacovigilance data

Historic precedence in pharmacovigilance, safety and product recall has not been followed with respect to the COVID-19 gene-based vaccines, as shown by reports on https://www.vaersanalysis.info/ which collates weekly updates of data from the US CDC's Vaccine Adverse Event Reporting System (VAERS) (Figure 4). The methodology used by vaersanalysis.info is presented in the supplemental materials.

A polio vaccine was withdrawn after just 10 death reports,[95] the Swine Flu vaccine of 1976 was recalled after just 25 of the ultimate 53 death reports.[96]

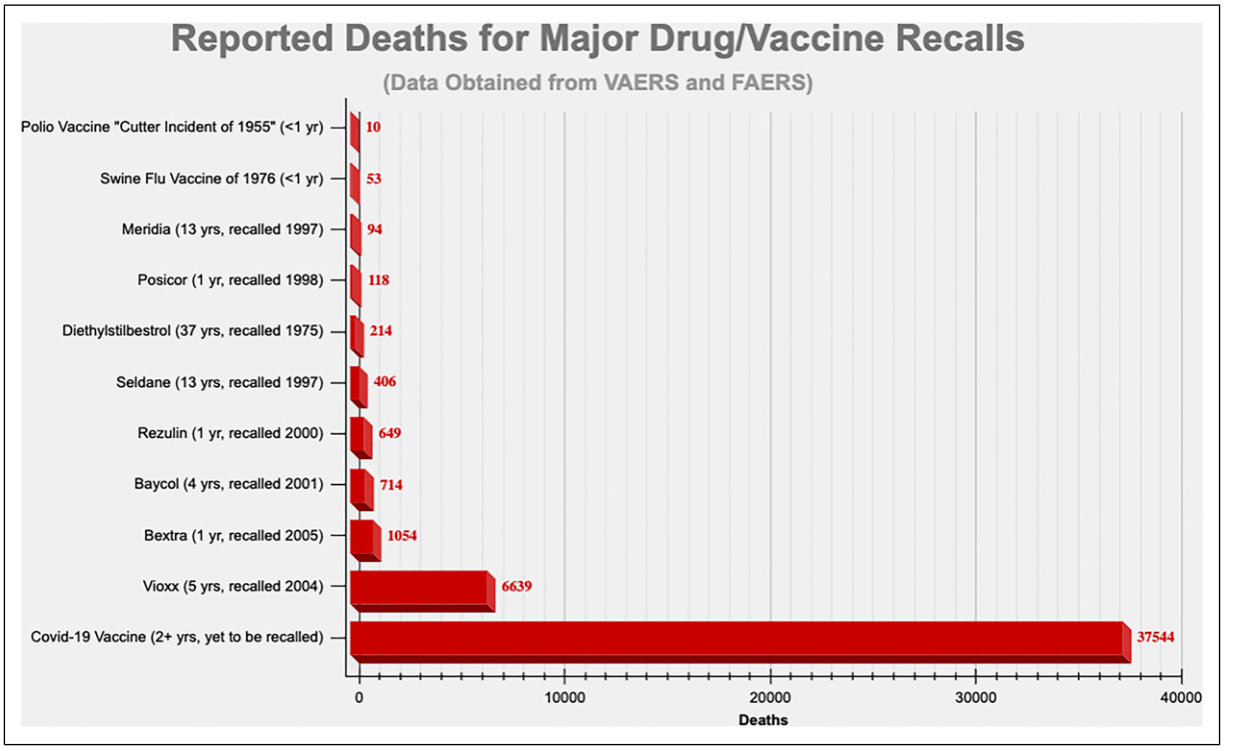

Figure 4. Reported suspected deaths for major drug/vaccine recalls versus COVID-19 vaccine reported suspected deaths. From VAERS Analysis[43] (with permission).

Not only are adverse events exceedingly high for the COVID-19 vaccines compared to all other vaccines (Figure 1), but deaths related to vaccines based *per million doses* show an unprecedented performance for the COVID-19 gene-based agents. Comparison with the influenza vaccine for which more doses have been dispensed is noteworthy (Figure 5).

The red bars provide a comparison of ratios of adverse events/distributed doses of vaccines. The COVID-19 vaccines have data for both distributed doses (solid bar) and administered doses (taller dotted line bar) which might be a more accurate comparison given the reported high proportion of non-used COVID-19 vaccine doses.[97,98]

Pharmacovigilance underestimation factor

Vioxx data suggests the FDA's adverse event database (FAERS) *underestimates deaths by a factor of 5- to 9-fold*.[88,99] With deaths from strokes added to heart attacks, the under-estimation factor is likely to have been greater.[24] Yet, since the advent of the COVID-19 vaccines, health authorities have strenuously suggested the unprecedented adverse events are over-reported and thus overestimated. For example, the Australian Therapeutics Goods Administration (TGA) claim of overestimation by its *passive* system Database of Adverse Event Notifications (DAEN) is directly contradicted by the Australian National Centre for Immunisation Research and Surveillance (NCIRS), who operate the *active* prompted submissions to the AusVaxSafety database. While active AusVaxSafety data for Pfizer,[100] Moderna,[101] and AstraZeneca[102] vaccines failed to question around severe adverse events, and is thus incomplete, it still reflects far greater numbers of adverse events than the passively collected TGA DAEN figures.

In the US, government quality assurance suggests that the CDC's VAERS *under-reports by a factor of 10- to 100-fold* – that only 1%–10% of all serious vaccine injuries are recorded.[103] VAERS sensitivity to capture serious adverse events well-known to be caused by vaccines, namely anaphylaxis and Guillain-Barré syndrome, ranged from 12% to 76%, but mostly around 25% for several vaccines. In other words, an *underestimation factor of 4-fold*.[104]

These pharmacovigilance databases err decidedly on the side of underestimation, not overestimation.

In this context, the TGA confirms 14 of 1004 deaths (to 29 October, 2023) reported as potentially associated with the COVID-19 vaccines authorised in Australia,[105] which implies the other 990 deaths (98.6%) reported, mostly by clinicians,

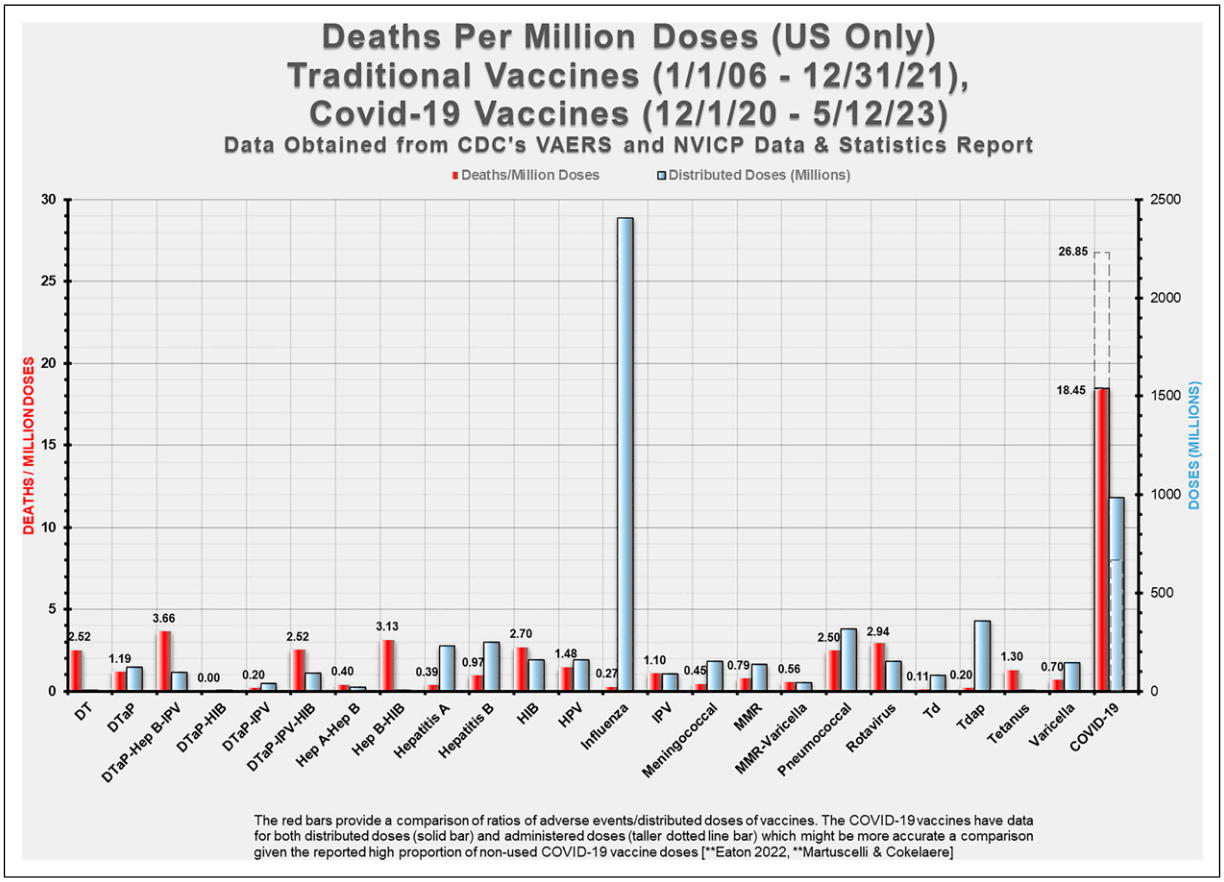

Figure 5. Suspected deaths per million doses of vaccine. Distributed doses in millions. Traditional versus COVID-19 vaccines. From: VAERS Analysis[43] (with permission). See also supplementary materials for further information on this graph.

are attributable to an *overestimation factor.* The TGA dismissal of the severity of its own DAEN data is at odds with all prior research and with the active surveillance systems.

The active surveillance AusVaxSafety survey data showed a dose response effect of increased mRNA in the higher ratio of adverse events from Moderna than Pfizer COVID-19 vaccines and in the higher rate after the second dose that follows soon after the first. Graphical representations of the statistics reveal high rates of "missing work, study or routine duties". A graph from the AusVaxSafety survey for the Moderna vaccine[101] is presented in Figure 6. AusVaxSafety had a limited range of adverse events typical of reactogenicity to vaccines for respondents to select. Inability to perform normal activities is generally considered a criterion for serious adverse events, even though the survey did not specifically list them.

Educated hesitancy has been mocked. Figure 7 from the VAERS analysis data shows that the rate of adverse events per vaccine dose reported did not vary substantially across the age range. This contrasts with the severity of COVID-19 viral illness which was a relatively mild illness for younger age cohorts.

Pharmacovigilance and the future

Broadly, all pharmaceutical products are continuously experimental, observed and tracked by pharmacovigilance systems worldwide. The population ultimately becomes the long-term experiment.[1]

Gene-based medicine in blanket form, with mass production at extremely low cost, is expected to become a significant market trend.[106] With the many gene-based therapeutic technologies planned, a vast new era of pathology may lie ahead.

Time honoured medical ethics and the precautionary principle must be reasserted. Commercial pressure, distortion of evidence base, authority bias and groupthink bureaucratic lockstep policy, all mitigate against cautious, safe-practice medical science.

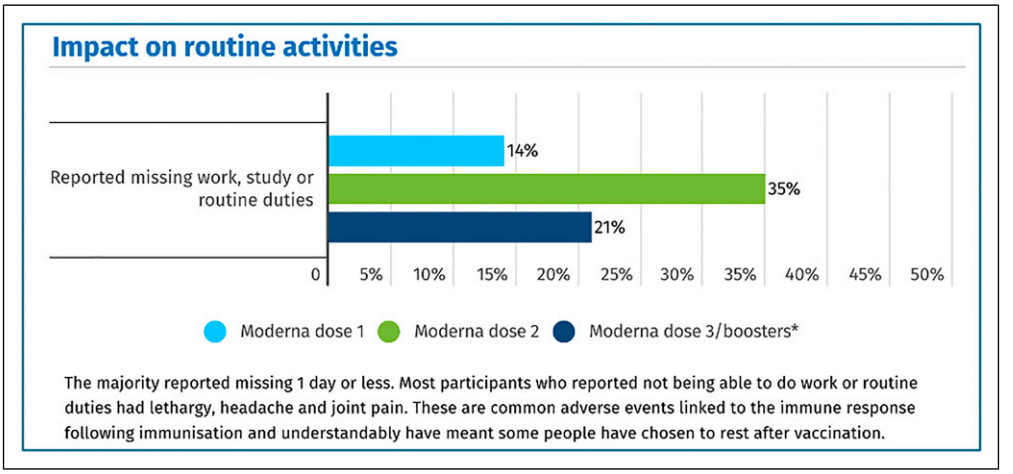

Figure 6. Impact on routine activities of Moderna doses 1, 2 and booster. AusVaxSafety data as January 26, 2023.[101]

Access to raw data, open discussion, freedom from censorship and heightened, active pharmacovigilance must be nurtured, if the health of humanity is to be better protected and if trust in the medical profession is to be fully restored.

Limitations

In this selective narrative review, limitations are embodied in the very nature of our subject matter – an exploration of conflicts between scientific integrity, data transparency and timely action on pharmacovigilance and adverse events, versus corporate ambitions to advertise, compete and market pharmaceutical agents for financial gain. The authors acknowledge limitations of free access to confidential data, a reliance upon Freedom of Information requests (themselves dependent upon

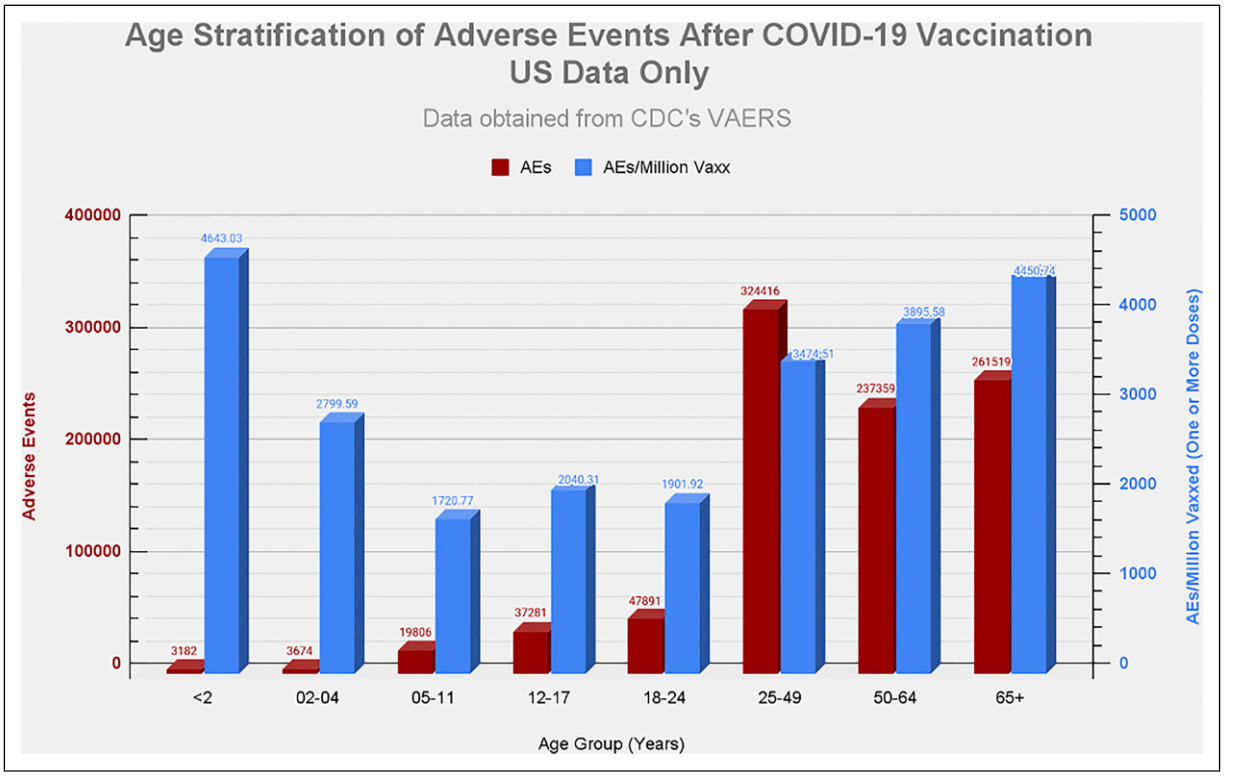

Figure 7. Age stratification of adverse events after COVID-19 vaccination. From: VAERS Analysis[43] (with permission).

the time, will and energies of interested parties), and of course dependency upon peer reviewed medical literature, an uncertain proportion of which has been shown to be unreliable, either because of exuberant optimism, publication haste or by deliberate design.[25–28,30,32–35,57–74]

The methodology for the graphs from https://www.vaersanalysis.info/ used in this paper, and limitations in the raw data used to compile those graphs, are described in the supplemental materials.

Conclusion

The fullest context is one in which the pharmaceutical industry has provided many remarkable drugs for the benefit of humanity. From this backdrop, we have selected a few of the most significant events in pharmaceutical recall history, in which commercial interest has dominated market strategy, and we have sought to derive key lessons from these.

A host of mechanisms are used by the pharmaceutical industry to promote and market their products. These include changes to the definitions or boundaries of disease, introduction of bias long before data collection begins, concealment of raw data, failure to collect safety data, or decisions not to report negative or unfavourable results.[33,89,90]

Gene codes for foreign protein production throughout the body are particularly novel. Close attention to pharmacovigilance data is imperative. Failure to withdraw the gene-based COVID-19 vaccines from the market, despite clear indications of harms, is not without precedent – as has been seen with Merck's Vioxx (rofecoxib).

Excess mortality figures are high at present in many countries that have deployed the novel and experimental gene-based COVID-19 vaccines. As open-mindedness, objectivity and curiosity are essential to good science, we must immediately include new corporate products in our discussions about excess mortality and its possible causes. Drug recalls have been significant and numerous over recent decades. It may well be high time for the recall of still more.

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ORCID iDs

Peter Rhodes https://orcid.org/0009-0000-9946-0434
Peter I Parry https://orcid.org/0000-0003-1086-0138

Supplemental Material

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Subject: Concerns Regarding WSDOH Recommendation on Water Fluoridation

Dear WSBOH,

I am writing to express my concerns regarding the current WSDOH recommendation to fluoridate drinking water.

It seems unthinkable for a physician to prescribe a lifelong dosage of a potentially toxic substance, with no proven clinical benefit, to someone they have never met, interviewed, or examined. Such an approach disregards individual medical histories and informed consent. Even more troubling, this recommendation effectively suggests that the public consume an unspecified amount of this substance indefinitely, not because of their individual needs, but because some children may suffer from tooth decay.

This one-size-fits-all approach is not only unscientific but also illegal, unethical and unacceptable.

On September 24, 2024, the U.S. District Court for the Northern District of California issued a landmark ruling, determining that water fluoridation at 0.7 mg/L poses an “unreasonable risk” to children’s health by reducing IQ. This decision underscores the urgent need to reevaluate the continued recommendation of fluoride at these levels, as it is no longer justifiable in light of the demonstrated harm.

In addition to my concerns, I would like to share the attached Top 50, Top 10, and Top 3 Reasons to Discontinue Fluoridation for your consideration. These reasons encapsulate a range of ethical, scientific, and public health perspectives that I believe warrant serious reflection.

The recommendation to fluoridate drinking water is in violation of numerous state and federal laws.

The Department of Health is complicit in encouraging violations of RCW 69.41.030, which governs the distribution and administration of legend drugs. Fluoride, classified as a legend drug, is being recommended for unauthorized delivery to the public without prescriptions, medical oversight, or the involvement of licensed professionals. This circumvention of lawful distribution channels and medical oversight constitutes a breach of RCW 69.41.030.

Additionally, under RCW 69.38.010, sodium fluoride meets the state's definition of a poison. The intentional addition of poison to the water supply contravenes RCW 69.40.030, which criminalizes the willful mingling of poisons in water supplies and carries penalties of imprisonment and substantial fines.

The Department also fails to ensure compliance with WAC 246-290-220, which mandates adherence to ANSI/NSF Standard 60 & 61. These standards limit the leaching of harmful contaminants into drinking water and ensure the additives are safe. Moreover, the

recommendation violates RCW 70A.125.060 by failing to prioritize the safety of the public water system, thereby compromising water quality and endangering public health.

Further, the promotion of fluoridation by the Department infringes upon federal regulations under CFR Title 21. Specifically, it violates 21 CFR 202.1(e) by failing to disclose side effects and making false or misleading claims about fluoride. This also constitutes a breach of the Food, Drug, and Cosmetic Act by promoting and distributing an unapproved drug without proper oversight or informed consent.

Finally, by recommending the addition of fluoride to water supplies without informed consent or medical oversight, the Department of Health is in violation of ethical standards set by the Nuremberg Code and the Belmont Report. These actions infringe upon constitutional rights, including the right to bodily integrity and freedom of medical choice.

Under federal law, fluoridation qualifies as medical experimentation. Fluoride is an unapproved drug being administered to human subjects without their consent, in violation of 21 CFR § 312.3(b). The Department has not ensured "legally effective informed consent" as required by 21 CFR § 50.20 and 21 CFR § 50.25(a)(1). Furthermore, no Investigational New Drug (IND) application has been filed, as required under 21 CFR § 312, nor has Institutional Review Board (IRB) approval been sought, as mandated by 21 CFR Part 56.

Lastly, under the Food, Drug, and Cosmetic Act (FD&C Act), the recommendation to fluoridate constitutes the unlawful introduction of an unapproved drug into interstate commerce without the required New Drug Application (NDA) or IND, in violation of 21 U.S.C. § 355. These actions amount to illegal medical experimentation and a failure to protect public health.

I urge the Department of Health to reconsider this recommendation in light of these legal, ethical, and public health concerns. Thank you for your attention to this matter.

Sincerely,

Derek Kemppainen
31404 NE 142nd Ave
Battle Ground, WA 98604
360-975-2011

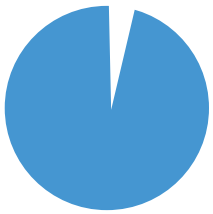
10 FACTS ABOUT FLUORIDE

FLUORIDEALERT.ORG
Fluoride Action Network

FACT 1 MOST DEVELOPED COUNTRIES DO NOT FLUORIDATE THEIR WATER

In the United States, health authorities call fluoridation "one of the top 10 public health achievements of the 20th century." Few other countries share this view. In fact, more people drink artificially fluoridated water in the U.S. alone than in the rest of the world combined.[1] Most advanced nations do not fluoridate their water. In western Europe, 97% of the population has water without a single drop of fluoride added to it.[2] Fluoridation proponents will sometimes say this is because Europe adds fluoride to its salt. Only five nations in western Europe, however, have any fluoridated salt.[3] The vast majority do not.

WESTERN EUROPE



97%
DO NOT DRINK FLUORIDATED WATER

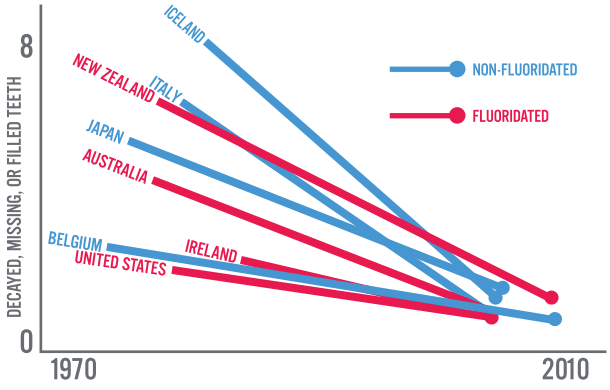
DID YOU KNOW?

MORE PEOPLE DRINK ARTIFICIALLY FLUORIDATED WATER IN THE U.S. ALONE THAN IN THE REST OF THE WORLD COMBINED

FACT 2

FLUORIDATED COUNTRIES DO NOT HAVE LESS TOOTH DECAY THAN NON-FLUORIDATED COUNTRIES

It is often claimed that fluoridated water is the main reason the United States has had a large decline in tooth decay over the past 60 years. This same decline in tooth decay, however, has occurred in all developed countries, most of which have never added any fluoride to their water.[4] Today, according to data from the World Health Organization, there is no discernible difference in tooth decay between the minority of developed countries that fluoridate water, and the majority that do not.[5]



SOURCE: WORLD HEALTH ORGANIZATION (2013)

FACT 3

FLUORIDE AFFECTS MANY TISSUES IN THE BODY BESIDES THE TEETH

Fluoridation advocates have long claimed that the safety of fluoridation is beyond scientific debate.[6] However, according to the well-known toxicologist, Dr. John Doull, who chaired the National Academy of Science's review on fluoride, the safety of fluoridation remains "unsettled" and "we have much less information than we should, considering how long it has been going on."[7] In 2006, Doull's committee at the NAS published an exhaustive 500-page review of fluoride's toxicity.[8] The report concludes that fluoride is an "endocrine disruptor" and can affect many things in the body, including the bones, the brain, the thyroid gland, the pineal gland, and even blood sugar levels.[9]

Far from giving fluoride a clean bill of health, the NAS called upon scientists to investigate if current fluoride exposures in the United States are contributing to chronic health problems, like bone disorders, thyroid disease, low intelligence, dementia, and diabetes, particularly in people who are most vulnerable to fluoride's effects.[10] These recommendations highlight that—despite 60 years of fluoridation—many of the basic studies necessary for determining the program's safety have yet to be conducted.

DID YOU KNOW?

"It is apparent that fluorides have the ability to interfere with the functions of the brain."

"The possibility has been raised by studies conducted in China that fluoride can lower intellectual abilities."

"Fluoride is an endocrine disruptor."

"Several lines of information indicate an effect of fluoride exposure on thyroid function."

"Sufficient fluoride exposure appears to . . . increase the severity of some types of diabetes."

"The relationship between fertility and fluoride requires additional study."

"Further research on a possible effect of fluoride on bladder cancer risk should be conducted."

"These changes have a bearing on the possibility that fluorides act to increase the risk of developing Alzheimer's disease."

SOURCE: National Research Council. (2006). Fluoride in Drinking Water: A Scientific Review of EPA's Standards. National Academies Press, Washington D.C.

FACT 4

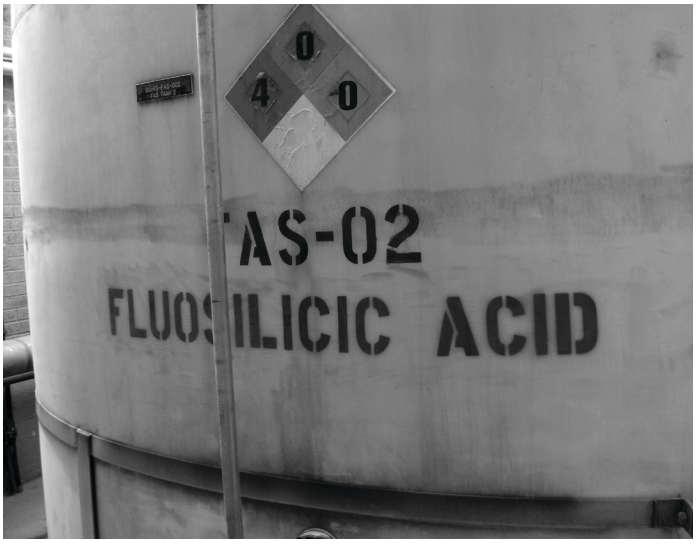
FLUORIDATION IS NOT A "NATURAL" PROCESS

Fluoridation advocates often say that "nature thought of fluoridation first." By this, they mean that fluoride occurs at naturally high levels in some water supplies.[11] Lots of toxic substances, however, like arsenic, and even some medicines, like lithium, can occur at naturally high levels. This doesn't mean they're safe.[12] Further, the level of fluoride added in artificial fluoridation programs is far higher than the level of fluoride that occurs in the vast majority of (unpolluted) fresh surface waters.[13]

Also the main fluoride chemical (fluorosilicic acid) that is added to water is not what most people would call

Fact 4 continued

a naturally occurring compound. It is a corrosive acid captured in the air pollution control devices of the phosphate fertilizer industry.[14] Fluoride is captured in air pollution control devices because fluoride gases are hazardous air pollutants that cause significant environmental harm.[15] This captured fluoride acid is the most contaminated chemical added to public water supplies,[16] and may impose additional risks to those presented by natural fluorides. These risks include a possible cancer hazard from the acid's elevated arsenic content, and a possible neurotoxic hazard from the acid's ability--under some conditions--to increase the erosion of lead from old pipes.[17]



DID YOU KNOW?

THE FLUORIDE CHEMICAL ("FLUOROSILICIC ACID") ADDED TO MOST TAP WATER IS A CORROSIVE ACID CAPTURED IN AIR POLLUTION CONTROL DEVICES

FACT 5

40% OF AMERICAN TEENAGERS SHOW VISIBLE SIGNS OF FLUORIDE OVER-EXPOSURE

According to a recent national survey by the CDC, about 40% of American teenagers have a condition called dental fluorosis.[18] Fluorosis is a defect of tooth enamel caused by fluoride's interference with the tooth-forming cells. The condition shows as cloudy spots and streaks and, in more severe cases, brown stains and tooth erosion.[19] In the 1950s, health officials claimed that fluorosis would only affect 10% of children in fluoridated areas.[20] This prediction has proven false. Today, not only do 40% of American teenagers have fluorosis, but, in some fluoridated areas, the rate is as high as 70 to 80%, with some children suffering advanced forms of the condition.[21]

> "Virtually all authors have noted that some children could ingest more fluoride from [toothpaste] alone than is recommended as a total daily fluoride ingestion."
>
> *- Dr. Stephen Levy, et al., Journal of Public Health Dentistry (1999).*

The high rate of fluorosis in the U.S. reflects the fact that **children now receive fluoride from many sources besides tap water**. When fluoridation first began, there was not a single tube of toothpaste that contained fluoride. Today, over 95% of toothpastes are fluoridated. Although fluoride toothpastes carry poison warnings on them, studies show that children can swallow large amounts of fluoride when they brush, particularly when using toothpaste with bubble gum and candy flavors.[22]

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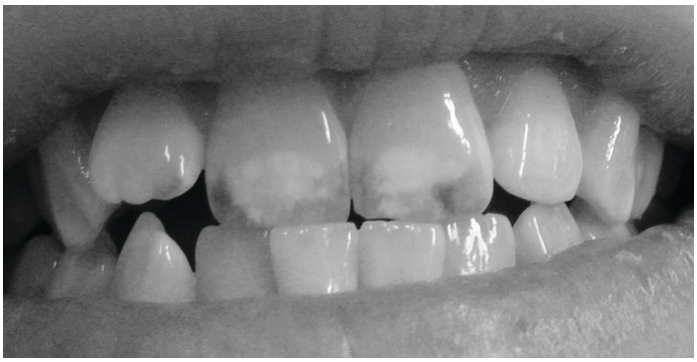
Fact 5 continued

And there are other sources of fluoride as well, including processsed beverages/foods,[23] fluoride pesticides,[24] tea,[25] Teflon pans,[26] and some fluorinated pharmaceuticals.[27] The concern today, therefore, is not just the safety of fluoridated water by itself, but the safety of fluoridated water in combination with all the other sources to which we're now exposed.



Dental Fluorosis >
Photograph by Hardy Limeback, DDS, PhD

DID YOU KNOW?

36 STUDIES HAVE FOUND A CORRELATION BETWEEN FLUORIDE AND LOWER IQ

FACT 6

FOR INFANTS, FLUORIDATED WATER PROVIDES NO BENEFITS, ONLY RISKS

Up until the 1990s, health authorities advised parents to give fluoride to newborn babies. This is no longer the case. Today, the Institute of Medicine recommends that babies consume a minuscule 10 micrograms of fluoride per day.[28] This is roughly the equivalent of what babies ingest from breast milk, which contains virtually no fluoride.[29]

Infants who consume formula made with fluoridated tap water consume up to 700 to 1,200 micrograms of fluoride, or about 100 times more than the recommended amount. According to the CDC, these early spikes of fluoride exposure during infancy provide no known advantage to teeth.[30] These spikes can, however, produce harm.

Recent studies show that babies who are given fluoridated water in their formula develop significantly higher rates of dental fluorosis.[31] Because of this, a number of prominent dental researchers now advise that parents should not add fluoridated water to baby formula.[32]

And teeth are not the only concern. In July of 2012, scientists from Harvard University warned that **the developing brain may be another target for fluoride toxicity.**[33] The Harvard team based their warning on a large number of studies from China that have found reduced IQ scores among children exposed to elevated fluoride during their early years of life. Twelve of the studies the Harvard team reviewed found IQ loss at fluoride levels deemed safe in the U.S. and a study sponsored by UNICEF found IQ loss in iodine-deficient children at the so-called "optimal" fluoridation level.[34] The possibility that fluoridated water can reduce IQ is a matter that "definitely deserves concern."[35]

FACT 7

FLUORIDE SUPPLEMENTS HAVE NEVER BEEN APPROVED BY THE FDA

Fluoride "supplements" are designed to provide children the same dose of fluoride they would receive by drinking fluoridated water.[36] Unlike other dietary supplements, however, you can't just walk into a grocery store and buy a fluoride supplement. Because of fluoride's toxicity, you can only buy a fluoride "supplement" if you have a doctor's prescription. Yet, although federal law requires that prescription drugs be approved as safe and effective by the FDA,[37] the FDA has never approved fluoride supplements for the prevention of tooth decay.[38] In fact, **the only fluoride supplements the FDA has reviewed, have been rejected**.[39] So, with fluoridation, we are adding to the water a prescription-strength dose of a drug that has never been approved by the FDA.

FACT 8

FLUORIDE IS THE ONLY MEDICINE ADDED TO PUBLIC WATER

Fluoride is the only chemical added to water that doesn't actually treat the water. Chlorine, for example, is added to kill bacteria so that we can drink the water without getting sick. Fluoride, by contrast, is added to prevent a disease (tooth decay) that is not caused by drinking water.

Fluoridation proponents claim that fluoridated water is not a medication because, in their view, it's no different than adding iodine to salt or vitamin D to milk. What proponents fail to acknowledge, however, is that iodine and vitamin D are both essential nutrients; but fluoride is not.

An essential nutrient is something the body has a physiological demand for. If we don't have enough

Fluoridation adds a prescription-strength dose of a drug to the water supply.

Fact 8 continued

iodine, for example, our thyroid gland won't function properly. Although fluoride advocates sometimes claim that fluoride is a "nutrient," the National Academy of Sciences has repeatedly confirmed that this is not the case.[40] Because fluoride is not a nutrient, the FDA has defined fluoride as a medicine when used to prevent disease.[41] Since tooth decay is a disease, adding fluoride to water to prevent tooth decay is -- as a matter of logic -- a form of medication. This is one of the reasons why most European nations have rejected fluoridation: because, in their view, the water supply is an inappropriate way to deliver medicine.[42] **With other medicines, it is the patient, not the doctor, who has the right to decide** which drug to take.[43] Fluoridation denies people this right.

> "Fluoridation goes against all principles of pharmacology. It's obsolete."
>
> *- Dr. Arvid Carlsson, Nobel Laureate in Medicine/Physiology.*

FACT 9

SWALLOWING FLUORIDE PROVIDES LITTLE BENEFIT TO TEETH

When water fluoridation first began back in the 1940s, the medical profession believed fluoride needed to be ingested to be most effective in preventing cavities.[44] This was why fluoride was added to water and pills—because these are things that people swallow. Today, however, it is now widely recognized that fluoride's main benefit does not actually come from ingestion, it comes from fluoride's **topical contact** with teeth[45]—a fact that even the CDC has now acknowledged.[46] So, not only does fluoridation add a medicine to water, it adds a medicine that does not actually need to be swallowed.

FACT 10

DISADVANTAGED COMMUNITIES ARE THE MOST DISADVANTAGED BY FLUORIDE

In the United States, there is a serious shortage of dentists who will treat low-income patients.[47] The claim, however, that we can compensate for this lack of care by forcing poor populations to consume fluoridation chemicals in their water is a dangerous one.

The conditions that make people more vulnerable to fluoride toxicity are more prevalent in poor communities than affluent ones (e.g., nutrient deficiencies, infant formula consumption, kidney disease, and diabetes).[48] This likely explains why African American and Mexican American children suffer significantly higher rates of dental fluorosis.[49] These disparities in fluoride risk have led several prominent civil rights leaders—including Andrew Young and the nation's largest Hispanic civil rights organization—to call for an *end to fluoridation*.[50]

Despite claims that fluoridation can prevent the high rates of tooth decay seen in poor areas, the vast majority of poor urban communities have been fluoridated for over 30 years, and yet are still suffering from a severe oral health crisis.[51] In fluoridated Cincinnati, the dental director described the state of oral health among poor children as "absolutely heartbreaking and a travesty," adding that "people would be shocked to learn how bad the problem has become.'"[52] Many other cities have experienced the same fate. *(See sidebar)*

DID YOU KNOW?

- In (fluoridated) Detroit, 91% of 5-year-old black children have tooth decay, with 42% suffering from "severe" decay.[54]
- In (fluoridated) New York City, 34% of pre-school black children from low-income families have rampant tooth decay, with a staggering 6.4 cavities per affected child.[55]
- In (fluoridated) Chicago, 64% of third graders have tooth decay.[56]
- In San Antonio, annual head start surveys show that fluoridation failed to reduce the high rate of tooth decay among the city's head start children. After eight years of fluoridation, the tooth decay rate did not decrease--it increased.[57]
- A national survey by the CDC found that the most fluoridated state in the U.S. (Kentucky) suffers the highest rate of tooth loss (44%) while the least fluoridated state (Hawaii) suffers the lowest rate of tooth loss (16%).[58]
- Untreated tooth decay in fluoridated urban areas has led to several deaths, including a 12-year-old child in Prince Georges Maryland, and a 24-year-old father in Cincinnati.[59]

The simple fact is that **poor populations need dental care, not fluoridation chemicals in their water.** The millions of dollars spent each year promoting fluoridation would be better spent advocating for policies that provide real dental care: like allowing dental therapists to provide affordable care to populations with little access to dentists.[53] In short, fluoridation provides good PR for dental trade associations, but bad medicine for those it's supposedly meant to serve.

REFERENCES:

NOTES FOR FACT 1: "MOST DEVELOPED COUNTRIES DO NOT FLUORIDATE THEIR WATER"

1) See data at: www.fluoridealert.org/content/bfs-2012/
2) See data at: www.fluoridealert.org/content/water_europe/
3) For data on the number of countries in Europe that allow fluoridated salt, see: Gotzfried F. (2006). *Schweiz Monatsschr Zahnmed* 116: 371–75. Unlike water fluoridation (which applies fluoride to an entire water supply), salt fluoridation in Europe is limited to household salt that people have the option to purchase. In two of the five European countries that allow salt fluoridation, only 6% to 10% of household salt is actually fluoridated). Salt fluoridation is thus a far less intrusive application of fluoride than water fluoridation.

NOTES FOR FACT 2: FLUORIDATED COUNTRIES DO NOT HAVE LESS TOOTH DECAY THAN NON-FLUORIDATED COUNTRIES

4) See extensive compilation of published research and data at: www.fluoridealert.org/studies/caries01/
5) World Health Organization Collaborating Centre for Education, Training, and Research in Oral Health, Malmö University, Sweden. Data available at http://www.mah.se/CAPP/ (accessed on March 30, 2013).

NOTES FOR FACT 3: FLUORIDE AFFECTS MANY TISSUES IN THE BODY BESIDES THE TEETH

6) A representative example of this viewpoint was expressed by Dr. Robert Kehoe in 1957: "The question of the public safety of fluoridation is non-existent from the viewpoint of medical science."
7) In a January 2008 article published in *Scientific American*, Dr. Doull was quoted as saying: "[W]e've gone with the status quo regarding fluoride for many years—for too long, really—and now we need to take a fresh look. In the scientific community, people tend to think this is settled. I mean, when the U.S. surgeon general comes out and says this is one of the 10 greatest achievements of the 20th century, that's a hard hurdle to get over. But when we looked at the studies that have been done, we found that many of these questions are unsettled and we have much less information than we should, considering how long this has been going on. I think that's why fluoridation is still being challenged so many years after it began."
See: www.fluoridealert.org/researchers/nrc/panelists/
8) National Research Council. (2006). Fluoride in drinking water: a scientific review of EPA's standards. National Academies Press, Washington D.C. Available online at: www.nap.edu/catalog.php?record_id=11571
9) See excerpts of NAS's findings at: www.fluoridealert.org/researchers/nrc/findings/
10) See excerpts of NAS's recommendations at: www.fluoridealert.org/researchers/nrc/recommendations/

NOTES FOR FACT #4: FLUORIDATION IS NOT A "NATURAL" PROCESS

11) Most fresh surface waters (e.g., lakes/streams) contain very little fluoride. When fluoride is obtained from deep ground water supplies, however, fluoride contamination can become a significant problem. See *infra* note 13.
12) High levels of naturally occurring fluorides have wreaked havoc on tens of millions of people's health around the world, particularly in developing countries where water shortages force many rural communities to obtain water from deep in the ground. Consumption of fluoride-laden well water causes serious health ailments, including tooth loss, bone disease, ulcers, brain damage, heart disease, and thyroid disease. See: www.fluoridealert.org/issues/health/. Because of this, international organizations like UNICEF assist developing nations in finding ways of removing fluoride from the water. For a review by UNICEF on the worldwide scope of fluoride poisoning, see: www.fluoridealert.org/uploads/UNICEF-1999.pdf
13) In Canada, the average level of fluoride in fresh surface water is just 0.05 ppm, which is 14 to 24 times less fluoride than added to water in fluoridation programs. See: Environment Canada. (1993). *Inorganic Fluorides: Priority Substances List Assessment Report.* Government of Canada, Ottawa. p. 14. Fresh vegetables, fruits, milk, and eggs contain even lower levels of fluoride (unless they're sprayed with fluoride pesticides). See:n www.fluoridealert.org/content/fresh_foods/. In the rare circumstance where rivers or ponds contain the same level of fluoride that is added to tap water, salmon and frogs have been found to suffer serious harm, including bone disease, changes in behavior, and increased mortality. See: Shaw SD, et al. (2012). Journal of Zoo & Wildlife Medicine 43(3):549-65; Damkaer DM, Dey DB. (1989). North American Journal of Fisheries Management. 9: 154-162.
14) As noted by the U.S. Environmental Protection Agency, "By recovering by-product fluosilicic acid from fertilizer manufacturing, water and air pollution are minimized, and water authorities have a low-cost source of fluoride available to them."
See: www.fluoridealert.org/uploads/hanmer1983.pdf.
15) In 20th century, fluoride pollution caused more harm to livestock than any other pollutant. In Polk County, Florida (the capital of America's phosphate industry), cattle downwind of the phosphate industry suffered "mass fluoride poisoning." Between 1953 and 1960, "the cattle population dropped 30,000 head," and "an estimated 150,000 acres of cattle land were abandoned." As one farmer explained, "Around 1953 we noticed a change in our cattle… We watched our cattle become gaunt and starved, their legs became deformed; they lost their teeth. Reproduction fell off and when a cow did have a calf, it was also affected by this malady or was a stillborn." For discussion and documentation, see: www.fluoridealert.org/articles/phosphate01/
16) See: Weng C, et al. (2000). Treatment chemicals contribute to arsenic levels. Opflow (AWWA), October, p. 6-7. Available at: http://www.fluoridealert.org/uploads/opflow-2000.pdf
17) Hirzy JW, et al. (2013). Environ. Sci. Policy http://dx.doi.org/10.1016/j.envsci.2013.01.007. On the lead/neurotoxic risk, see: Coplan MJ, et al. (2007). Neurotoxicology 28(5):1032-42; Maas RP, et al. (2007). Neurotoxicology 28(5):1023-31.

NOTES FOR FACT #5: 40% OF AMERICAN TEENAGERS SHOW VISIBLE SIGNS OF FLUORIDE OVER-EXPOSURE.

18) Beltran-Aguilar ED, et al. (2010). *Prevalence and Severity of Dental Fluorosis in the United States, 1999–2004.* NCHS Data Brief No. 53.
19) For photographs and discussion, see: www.fluoridealert.org/issues/fluorosis/
20) Spzunar SM, Burt BA. (1988). J. Dent. Res. 67(5):802-06; Hodge HC. (1950). J. Am. Dent. Assoc. 40:436-39.
21) See: www.fluoridealert.org/studies/dental_fluorosis01/
22) See: www.fluoridealert.org/issues/sources/f-toothpaste/
23) See: www.fluoridealert.org/issues/sources/processed/
24) See: www.fluoridealert.org/issues/sources/f-pesticides/
25) See: www.fluoridealert.org/issues/sources/tea/
26) See: www.fluoridealert.org/issues/sources/teflon-pans/
27) See: www.fluoridealert.org/issues/sources/pharmaceuticals/

NOTES FOR FACT #6: FOR INFANTS, FLUORIDATED WATER PROVIDES NO BENEFITS, ONLY RISKS

28) Institute of Medicine. (1997). *Dietary Reference Intakes for Calcium, Phosphorus, Magnesium, Vitamin D, and Fluoride.* p. 302.
29) Ekstrand J, et al. (1981). British Medical Journal 283: 761-2.
30) In a May 15, 2012 letter to Senator Barbara Boxer, the CDC wrote: "We are **unaware of data** . . . about the additional protection from tooth decay that could result from [intakes greater than 10 micrograms/day of fluoride]." See: www.fluoridealert.org/uploads/cdc-2012.pdf
31) See: www.fluoridealert.org/studies/infant02/
32) See: www.fluoridealert.org/studies/infant01/
33) Choi AL, et al. (2012). Environmental Health Perspectives 120:1362-68.
34) For a discussion of these studies, see: www.fluoridealert.org/articles/iq-facts/. For a listing of all studies that have found an association between fluoride and reduced IQ, see: www.fluoridealert.org/studies/brain01/.
35) Dr. Philippe Grandjean, the senior scientist who authored the Harvard review, has stated that: "Chemical brain drain should not be disregarded. The average IQ deficit in children exposed to increased levels of fluoride in drinking water was found to correspond to about 7 points – a sizable difference. To which extent this risk applies to fluoridation in Wichita or Portland or elsewhere is uncertain, but **definitely deserves concern**." See: www.braindrain.dk/2013/02/fluoridated-water-and-brains/.

NOTES FOR FACT #7: FLUORIDE SUPPLEMENTS HAVE NEVER BEEN APPROVED BY THE FDA

36) Under current fluoride supplementation guidelines, two-year-old children living in non-fluoridated areas are prescribed 0.25 mg of fluoride per day. This is the same amount of fluoride contained in just one 8 ounce glass of water fluoridated at 1 ppm. To learn more about current fluoride supplementation guidelines, see: Rozier RG, et al. (2010). J. Am. Dent. Assoc. 141(12):1480-89.
37) 21 U.S.C. § 355(a). Although an exception to this rule exists for drugs that were on the market prior to 1938, fluoride supplements did not enter the market until the 1950s. Accordingly, the "grandfather clause" exception does not apply to fluoride supplements. For a detailed discussion on this point, see: www.fluoridealert.org/researchers/fda/explanations/
38) To access FDA's letters confirming this fact, see: www.fluoridealert.org/researchers/fda/not-approved/
39) The two fluoride supplements that FDA has rejected are Enziflur (a fluoride/vitamin combination) and prenatal fluoride supplements. See: www.fluoridealert.org/uploads/enziflur-1975.pdf and www.fluoridealert.org/articles/fda-1966/.

NOTES FOR FACT 8: FLUORIDE IS THE ONLY MEDICINE ADDED TO PUBLIC WATER

40) According to the NAS, "fluoride is no longer considered an essential factor for human growth and development." See: www.fluoridealert.org/studies/essential-nutrient/
41) According to the FDA: "Fluoride, when used in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or animal, **is a drug** that is subject to Food and Drug Administration (FDA) regulation." See: www.fluoridealert.org/researchers/fda/drug/
42) In Germany, for example, "the argumentation of the Federal Ministry of Health against a general permission of fluoridation of drinking water is the **problematic nature of compulsion medication**." See this and other statements from European authorities at: www.fluoridealert.org/content/europe-statements/.
43) Under the principle of "informed consent," the patient has the "right to self decision." See: *AMA Ethical Opinion 8.08*. While the doctor has an "obligation . . . to present the medical facts accurately to the patient," it is the patient (or the patient's caregiver) who has the sole right to decide what medical treatments to use.

NOTES FOR FACT 9: SWALLOWING FLUORIDE PROVIDES LITTLE BENEFIT TO TEETH

44) Fejerskov O. (2004). Caries Research 38:184 ("The hypothesis was that increased intake of fluoride during tooth formation raises the fluoride concentration in enamel and hence increases acid resistance. As a consequence fluoride had to be taken systemically and artificial fluoridation of drinking waters became the 'optimal' solution.").
45) For an extensive compilation of quotes from dental researchers discussing this consensus, see: www.fluoridealert.org/studies/caries04/
46) According to the CDC, "fluoride prevents dental caries predominately after eruption of the tooth into the mouth, and its actions primarily are **topical** for both adults and children." Centers for Disease Control (1999). Morbidity and Mortality Weekly Report 48: 933-40.

NOTES FOR FACT 10: DISADVANTAGED COMMUNITIES ARE THE MOST DISADVANTAGED BY FLUORIDE

47) In Maryland, 84% of dentists do not accept Medicaid patients. Similar rates exist in other states, including Alabama (82%), Colorado (79%), and Ohio (72%). As a result, most low-income children are not able to receive treatment from a dentist. See data and reports at: www.fluoridealert.org/content/dental-care/
48) See: www.fluoridealert.org/issues/sources/ej/
49) Beltran-Aguilar ED et al. (2005). MMWR Surveillance Summaries 54(3): 1-44. For a discussion of other studies that have found racial disparities in fluorosis rates, see: www.fluoridealert.org/studies/dental_fluorosis02/
50) See: www.fluoridealert.org/issues/ej/statements/
51) For a compilation of reports, see: www.fluoridealert.org/studies/caries07/.
52) See: www.fluoridealert.org/news/cincinnatis-dental-crisis/
53) Allowing access to dental therapists represents an important strategy for expanding dental care services to underserved populations. Dental therapists are specially trained to provide dental care, such as tooth cleanings and fillings. According to a recent review, "the quality of technical care provided by dental therapists (within their scope of competency) was comparable to that of a dentist, and in some studies was judged to be superior." Nash D, et al. (2012). *A Review of the Global Literature on Dental Therapists*. W.K. Kellogg Foundation. p. 6. Despite these findings, dental trade associations (such as the American Dental Association) are vigorously lobbying against efforts to allow dental therapists to serve underprivileged populations. See: Levine D. (2011). *Why Are Dentists Opposing Expanded Dental Care?* Available at: www.governing.com/topics/health-human-services/gov-why-are-dentists-opposing-expanded-dental-care.html
54) Ismail AI, et al. (2006). Severity of dental caries among African American children in Detroit. Presentation at ADEA/AADR/CADR Conference, March 11. Abstract available at: http://iadr.confex.com/iadr/2006Orld/techprogram/abstract_73168.htm
55) Albert DA, et al. (2002). *Dental caries among disadvantaged 3- to 4-year-old children in northern Manhattan.* Pediatric Dentistry 24:229-33.
56) Bridge to Healthy Smiles. Cook County Oral Health Crisis. Available at: http://www.bridgetohealthysmiles.com/ISDSBrochure.pdf
57) Bexar County Head Start Dental Screenings Program. See data at: www.fluoridealert.org/uploads/san_antonio_caries.pdf
58) Centers for Disease Control. (1999). Behavioral Risk factor Surveillance System. Data summarized at: http://drc.hhs.gov/report/4_3.htm
59) For a discussion of these tragic outcomes, see: Carrie Gann, *Man Dies from Toothache, Couldn't Afford Meds*, ABC News, Sept. 11, 2011, and Laura Owings, *Toothache Leads to Boy's Death*, ABC News, March 5, 2007.

STATEMENTS ON FLUORIDATION FROM CIVIL RIGHTS LEADERS

"I am most deeply concerned for poor families who have babies: if they cannot afford unfluoridated water for their babies' milk formula, do their babies not count? Of course they do. This is an issue of fairness, civil rights, and compassion. We must find better ways to prevent cavities, such as helping those most at risk for cavities obtain access to the services of a dentist."

-Andrew Young

"I support the holdings of Fluoridegate hearings so we can learn why we haven't been openly told that fluorides build up in the body over time, why our government agencies haven't told the black community openly that fluorides disproportionately harm black Americans, and why we've been told that decades of extensive research show fluoridation to be safe, when the National Research Council in 2006 listed volumes of basic research that has never been done."

-Rev. Gerald Durley

"This is a civil rights issue. No one should be subjected to drinking fluoride in their water, especially sensitive groups like kidney patients and diabetics, babies in their milk formula, or poor families that cannot afford to purchase unfluoridated water. Black and Latino families are being disproportionately harmed."

-Alveda King

From: Erin Harnish
Sent: 1/4/2025 4:38:44 PM
To: DOH WSBOH
Cc:
Subject: My Public Comments

External Email

Dear board of health,

I am in support of continued Fluoridation to our city water throughout Washington state and we have support from physicians and dentists. WSMA has policy in support as does the AAP (American Academy of Pediatrics). The AAP and ADA have both restated their support since the latest questions brought forth after the NTP fluoride report. The concern can be calmed as that report was out of the US and communities with very high fluoride. It is not the safe and low and recommended level we have. Fluoride is a mineral and necessary for our bodies. It is not a medication. We have prescribed doses so that the correct amount is given to patients when needed and appropriate.

Please keep smiling, Keep Fluoride!
Erin

Erin Harnish MD FAAP
Community Pediatrician
Washington
Sent from my iPhone

From: Geri Rubano
Sent: 1/4/2025 6:51:14 AM
To: DOH WSBOH
Cc:
Subject: Public Comment 1/8/25

External Email

Dear WSBOH,

Please include the following as a Public Comment for the Board meeting being held on January 8, 2025.

I am a resident in Camas (Clark County) and spoke to the Camas City Council during their workshop on water fluoridation on December 2, 2024. Many Camas city council members were very open to ending the practice of water fluoridation and have since put out a notice to the residents of Camas informing them of the consideration of ending water fluoridation. I believe this is a very positive and necessary step towards protecting the residents of Camas against a highly toxic chemical.

As you are aware, sodium fluoride is a by-product of the fertilizer industry. It is also considered a legend drug that comes with risks and harm. With any drug, the patient needs to give informed consent. I was not given a risk/benefit profile by the city council or utility manager regarding the sodium fluoride being injected into the city's water system nor did I consent to the practice. If there is a risk there must be a choice.

It is my hope that the Board of Health will reconsider their support of water fluoridation in light of the September Federal Court ruling that fluoride poses an unreasonable risk to children. The mission of the Board is is to improve and protect the public's health for ALL people in Washington. Please act on that mission and support the end of water fluoridation throughout Washington.

Thank you,

Geri Rubano

From: bill teachingsmiles.com
Sent: 1/3/2025 12:40:01 PM
To: DOH WSBOH
Cc:
Subject: 1/8/2025 Public Comment

attachments\5311203F504347A4_1 8 25 PC.docx

attachments\612F94D60EFC48BE_1 8 25 PC.pdf

External Email

Dear WSBOH,

Please include the following as Public Comment for the Board Meeting of January 8, 2025. A pdf and word copies are attached the same comments as pasted below. The pdf should be the cleanest, but if that is hard to read, please use the word copy or the pasted copy below.

RECOMMENDATIONS FOR FLUORIDE USE HAVE CHANGED: Many people are ingesting too much fluoride, especially the fetus, infants, children, those swallowing fluoridated water, and/or those ingesting foods and medicines high in fluoride. Judging the benefits vs risks of fluoride requires considering many streams of evidence and a work in progress. The following is the best guidance based on research as of 2024. Safety should be our highest priority.

SWALLOWING FLUORIDE, INCLUDING WATER AND FOODS CONTAINING GREATER THAN 0.2 MG/L, SHOULD BE AVOIDED: Potential harms are reported by the National Research Council in 2006, such as cell function, teeth, skeleton, chondrocyte metabolism, arthritis, reproductive and developmental effects, neurotoxicity, neurobehavioral effects, endocrine system, gastrointestinal, renal, hepatic, immune systems, genotoxicity, carcinogenicity, and more. Over the last quarter Century, each risk has been further scientifically supported and of concern. Fluoride is a highly reactive element and can affect all cells.[1]

FLUORIDATION MAY NOT BE EFFECTIVE: The Food and Drug Administration notified fluoride supplement manufacturers that evidence of efficacy was incomplete. Only one randomized controlled trial on fluoride ingestion has been published and it did not report a statistical benefit.[2] The Food and Drug Administration Center for Drug Evaluation and Research has not approved swallowing fluoride with the intent to prevent dental cavities[3].

FLUORIDATION IS NOT COST EFFECTIVE: Costs to treat harm exceed the alleged costs saved when risks are included.[4]

Guidance for the fetus: Girls and women wanting to become pregnant someday should avoid drinking water with greater than 0.2 ppm of fluoride[5] or swallowing fluoride toothpaste, and should avoid foods high in fluoride for 20 years prior to pregnancy.

Mothers, during pregnancy, should avoid drinking fluoridated water, avoid swallowing fluoride toothpaste, avoid fluoride dental products, avoid foods high in fluoride such as tea,[6] and with advice from your doctor avoid medications that may release significant amounts of fluoride.

Guidance for infants: Infants thrive best on their mother’s milk. A mother’s body biologically blocks virtually all fluoride, protecting babies naturally. A second-best option

is a formula made with water containing less than 0.01 ppm of fluoride, when possible.[7] (Mother's milk has a mean concentration of 0.004 ppm). No fluoride toothpaste for infants.
Early Childhood Cavities is significantly increased by putting a baby to sleep and prolonged sleep with a bottle of formula or juice.[8] When teeth erupt, wiping them gently with a soft cloth or playing with a small tooth brush can be helpful in reducing mouth phobia.
Guidance for Toddlers: No fluoride toothpaste for toddlers. Avoid drinking water, juices and cooking foods with more than 0.2 ppm of fluoride. Dental flossing can be started when teeth are touching side by side. Limit refined foods. Brushing teeth can be learned at a young age; although accuracy needs to be guided by caregivers.
A dental visit, happy visit, by age 1 is encouraged for caregiver instruction on reducing dental cavities. A dental visit by age 3 is important.
Guidance for children: Avoid drinking water with more than 0.2 ppm of fluoride. Swallowing is a reflex, and children tend to swallow candy-flavored toothpastes, which can harm their development. Children should avoid fluoride toothpaste prior to competency in spitting and rinsing and spitting, and once again rinsing and spitting prior to swallowing. Read the toothpaste label.
No fluoride toothpaste prior to age 2 (some toothpaste labels advise 12 years of age). From age 2 to 6 a small grain of rice size of fluoride toothpaste may be used, when spitting prior to swallowing is learned and monitored. Above the age of 6 a baby pea size of toothpaste may provide some benefit when spitting and rinsing prior to swallowing is learned and monitored.
Caregivers should watch their child's neck as they brush and spit and rinse and spit again to ensure the child is not reflexively swallowing. If in doubt, leave toothpaste out. Brains are more important than teeth.
To minimize a chronic toxic intake of fluoride, children should avoid foods high in fluoride, such as mechanically deboned meat which can have bone meal, and tea. Organic foods may contain less fluoride pesticide. Topical fluoride may have slight benefit in caries reduction[9] although fluoride varnish will increase plasma fluoride concentrations. The best choice for prevention of dental cavities is to reduce risk with a healthy whole unrefined foods and careful hygiene.
Guidance for adults: Do not swallow fluoride toothpaste. Avoid drinking water containing more than 0.2 ppm fluoride. Some foods are high in fluoride and should be limited.
For 15 years, I have been coming to the BOH requesting, begging, petitioning 22 times for the Board to give the people of Washington, our patients, FREEDOM and stop the Board and Department from harming millions of Washington residents. The Board has refused to protect the public with even a simple label.
People have fought and died for freedom, but we should not have to fight authorities to give us basic human rights, Freedom.
Dental caries are not highly contagious, infecting others and killing them. Fluoridation is not like a vaccine intended to prevent the spread of dental caries.
The purpose of adding an EPA contaminated contaminant to public water is to treat each individual in an attempt to mitigate their bad diet and bad hygiene.
Options with freedom, include supplements and toothpaste, black tea, non-organic foods.

However, supplements, do not force compliance. The only reason to add the fluoride to public water is to try and shove it down our throats without our consent. Consent which the Board has ferociously blocked and denied.
Except, about half the water we drink is bottled water, costly, increasing plastic pollution and PFAS exposure. Public Health Authorities should not be trusted regarding fluoride.
A recent review
<https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fem.networkforgood.com%2Fls%2F
2BQjZ8zWHEP07LFdYTEDhBt2bqm-2BlL-2FVkMqEj79lsNxhfcU1CjztQPdk4cXfCd6TOyHRk-
2Bg3hltauOSENkJOGL7Xax5qz7B1TTx4umposs8kif0b9NDEYGk466ytIWbuyVKPffDL1NzrmtnsEH46nWhXC_N
2FLRVQSmKPSrJSlSkiEXV47TYusuTRTub5BPSu7EbuCLnqpZBymHBE2p5CynXsXZjW4L47CrY6gkB06OS3hUv
2B-2FpXXS9bgocY4-2BLNVX3UPyuR2dY-
2BJmQMQeEoQ64RNLhWkn5G6DXhw2GjDZtE81fnyk1ImKQVFxSYtSrjYZX80xfcJuXWnd4DptbhbGnBunLCpY

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3D&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Ce7ec65e68c1141d0180308dd2c36b693%7C11d0e217
by the Cochrane Collaboration found less than a 4% reduction in tooth decay from fluoridation.

The 2024 LOTUS study,
<https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fem.networkforgood.com%2Fls%2F
2BxHoOpNKFEUAEGiAdAoDDQZD8rnk-2BGZ9AEmTF5iVsdy0M7uCfJ2K-2FnrAgdnOOUjTv-
2BZgZHveeze-2BAarKRhjJbIuL8FNSI0P-2B2vBMC2EEVCBsw-2B9lKC1L-
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2FHQVG2v6Cf9RYWgbTHAC7pCtGCT18NQNfwZBcOhlD9kLl-2F35rkwoN94jF-
2Bersp8WnHf8Ix-
2BzpL8eg9WIgJqGbDMAP3xWuZ9CCpjVuIoHxdS6JvO7bY53VrSAMMtER3kVjGIk2tM-
2FUd9soBrG3nJi4DTgUXMOSC03d6kSybuR84YgKZgsC48663kxbOUiydW1JNVuwaC1sjdewSU7Wd6JYmqQnT
2BwoNEAWiFRwMtcG8jUk3QMBDR1F26-2BfV-
2F4y2QVyiqTK72LBvHHZU66z95oK8zH7uojBlYfYqts6-
2FcCntLjsnf64A6OovOqJSv0WK8GzWLyJ6JO8OOjJ6Fb6E0hL2Goqhkhgv5o1ixqCPgZodLIuYW-
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2B5UtQVasn1Mh1UJqQ-
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2FAQc-
3D&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Ce7ec65e68c1141d0180308dd2c36b693%7C11d0e217
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<https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fem.networkforgood.com%2Fls%2F
2BxHoOpNKFEUAEGiAdAoDDQZD8rnk-2BGZ9AEmTF5iVsdy0M7uCfJ2K-
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2FLRVQSmKPSrJSlSkiEXV47TYusuTRTub5BPSu7EbuCLnqpZDJ-2FGsfeLVwHa5mMLD-
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2F34qzLmOHFIFiCVL0rBlTXAMfBfDj7PF1rhtO7hSjBH9JdoYToW83j-2ByS3Dg1w-
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2BUzH6OPl59EAK4pUAnkQ27qpVVXQKK6QSuFXp6ilC3H3-2FjLQQnSIaHbqk-
3D&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Ce7ec65e68c1141d0180308dd2c36b693%7C11d0e217
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Please provide a forum as RCW requires.

Sincerely,
Bill Osmunson DDS MPH
Washington Action for Safe Water

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[1] FLUORIDE IN DRINKING WATER: A Scientific Review of EPA's Standards. NRC-2006.pdf
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.actionpa.org%2Ffluoride%2F
2006.pdf&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Ce7ec65e68c1141d0180308dd2c36b693%7C11d

[2] Leverett DH, Adair SM, Vaughan BW, Proskin HM, Moss ME. Randomized clinical trial of the effect of prenatal fluoride supplements in preventing dental caries. Caries Res. 1997;31(3):174-9. doi: 10.1159/000262394. PMID: 9165186.

[3] Approved Drug Products with Therapeutic Equivalence Evaluations | Orange Book
Approved Drug Products with Therapeutic Equivalence Evaluations | Orange Book | FDA
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.fda.gov%2Fdrugs%2Fdrug-approvals-and-databases%2Fapproved-drug-products-therapeutic-equivalence-evaluations-orange-book&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Ce7ec65e68c1141d0180308dd2c36b693%7C11d0e21

[4] Osmunson, B. and Cole, G. (2024), Community Water Fluoridation a Cost–Benefit–Risk Consideration. Public Health Chall., 3: e70009. https://doi.org/10.1002/puh2.70009
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.1002%2Fpuh2.700

[5] Malin AJ, Eckel SP, Hu H, Martinez-Mier EA, Hernandez-Castro I, Yang T, Farzan SF, Habre R, Breton CV, Bastain TM. Maternal Urinary Fluoride and Child Neurobehavior at Age 36 Months. JAMA Netw Open. 2024 May 1;7(5):e2411987. doi: 10.1001/jamanetworkopen.2024.11987. Erratum in: JAMA Netw Open. 2024 Jun.

[6] Carwile JL, Ahrens KA, Seshasayee SM, Lanphear B, Fleisch AF. Predictors of Plasma Fluoride Concentrations in Children and Adolescents. Int J Environ Res Public Health. 2020 Dec 9;17(24):9205. doi: 10.3390/ijerph17249205. PMID: 33317121; PMCID: PMC7764416.

[7] Fluoride, Neurodevelopment, and Cognition: A National Toxicology Program Monograph. Fluoride, Neurodevelopment, and Cognition: A National Toxicology Program Monograph — Collaborative for Health & Environment
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.healthandenvironment.org%
webinars%2F96797&data=05%7C02%7Cwsboh%40sboh.wa.gov%7Ce7ec65e68c1141d0180308dd2c36b6

[8] Kirthiga M, Murugan M, Saikia A, Kirubakaran R. Risk Factors for Early Childhood Caries: A Systematic Review and Meta-Analysis of Case Control and Cohort Studies.

Pediatr Dent. 2019 Mar 15;41(2):95-112. PMID: 30992106; PMCID: PMC7100045.
[9] Uhlen-Strand MM, Stangvaltaite-Mouhat L, Mdala I, Volden Klepaker I, Wang NJ, Skudutyte-Rysstad R. Fissure Sealants or Fluoride Varnish? A Randomized Pragmatic Split-Mouth Trial. J Dent Res. 2024 Jul;103(7):705-711. doi: 10.1177/00220345241248630. Epub 2024 May 8. PMID: 38716723; PMCID: PMC11191655.

Washington State Board of Health January 3, 2025

RECOMMENDATIONS FOR FLUORIDE USE HAVE CHANGED: Many people are ingesting too much fluoride, especially the fetus, infants, children, those swallowing fluoridated water, and/or those ingesting foods and medicines high in fluoride. Judging the benefits vs risks of fluoride requires considering many streams of evidence and a work in progress. The following is the best guidance based on research as of 2024. Safety should be our highest priority.

SWALLOWING FLUORIDE, INCLUDING WATER AND FOODS CONTAINING GREATER THAN 0.2 MG/L, SHOULD BE AVOIDED: Potential harms are reported by the National Research Council in 2006, such as cell function, teeth, skeleton, chondrocyte metabolism, arthritis, reproductive and developmental effects, neurotoxicity, neurobehavioral effects, endocrine system, gastrointestinal, renal, hepatic, immune systems, genotoxicity, carcinogenicity, and more. Over the last quarter Century, each risk has been further scientifically supported and of concern. Fluoride is a highly reactive element and can affect all cells.[1]

FLUORIDATION MAY NOT BE EFFECTIVE: The Food and Drug Administration notified fluoride supplement manufacturers that evidence of efficacy was incomplete. Only one randomized controlled trial on fluoride ingestion has been published and it did not report a statistical benefit.[2] The Food and Drug Administration Center for Drug Evaluation and Research has not approved swallowing fluoride with the intent to prevent dental cavities[3].

FLUORIDATION IS NOT COST EFFECTIVE: Costs to treat harm exceed the alleged costs saved when risks are included.[4]

[1] FLUORIDE IN DRINKING WATER: A Scientific Review of EPA's Standards. NRC-2006.pdf

[2] Leverett DH, Adair SM, Vaughan BW, Proskin HM, Moss ME. Randomized clinical trial of the effect of prenatal fluoride supplements in preventing dental caries. Caries Res. 1997;31(3):174-9. doi: 10.1159/000262394. PMID: 9165186.

[3] **Approved Drug Products with Therapeutic Equivalence Evaluations | Orange Book** **Approved Drug Products with Therapeutic Equivalence Evaluations | Orange Book | FDA**

[4] Osmunson, B. and Cole, G. (2024), Community Water Fluoridation a Cost–Benefit–Risk Consideration. Public Health Chall., 3: e70009. https://doi.org/10.1002/puh2.70009

Guidance for the fetus: Girls and women wanting to become pregnant someday should avoid drinking water with greater than 0.2 ppm of fluoride[5] or swallowing fluoride toothpaste, and should avoid foods high in fluoride for 20 years prior to pregnancy.

Mothers, during pregnancy, should avoid drinking fluoridated water, avoid swallowing fluoride toothpaste, avoid fluoride dental products, avoid foods high in fluoride such as tea,[6] and with advice from your doctor avoid medications that may release significant amounts of fluoride.

Guidance for infants: Infants thrive best on their mother's milk. A mother's body biologically blocks virtually all fluoride, protecting babies naturally. A second-best option is a formula made with water containing less than 0.01 ppm of fluoride, when possible.[7] (Mother's milk has a mean concentration of 0.004 ppm). No fluoride toothpaste for infants.

Early Childhood Cavities is significantly increased by putting a baby to sleep and prolonged sleep with a bottle of formula or juice.[8] When teeth erupt, wiping them gently with a soft cloth or playing with a small tooth brush can be helpful in reducing mouth phobia.

Guidance for Toddlers: No fluoride toothpaste for toddlers. Avoid drinking water, juices and cooking foods with more than 0.2 ppm of fluoride. Dental flossing can be started when teeth are touching side by side. Limit refined foods. Brushing teeth can be learned at a young age; although accuracy needs to be guided by caregivers.

A dental visit, happy visit, by age 1 is encouraged for caregiver instruction on reducing dental cavities. A dental visit by age 3 is important.

Guidance for children: Avoid drinking water with more than 0.2 ppm of fluoride. Swallowing is a reflex, and children tend to swallow candy-flavored toothpastes, which can harm their development. Children should avoid fluoride toothpaste prior to competency in spitting and rinsing and spitting, and once again rinsing and spitting prior to swallowing. Read the toothpaste label.

No fluoride toothpaste prior to age 2 (some toothpaste labels advise 12 years of age). From age 2 to 6 a small grain of rice size of fluoride toothpaste may be used, when spitting prior to swallowing is learned

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[5] Malin AJ, Eckel SP, Hu H, Martinez-Mier EA, Hernandez-Castro I, Yang T, Farzan SF, Habre R, Breton CV, Bastain TM. Maternal Urinary Fluoride and Child Neurobehavior at Age 36 Months. JAMA Netw Open. 2024 May 1;7(5):e2411987. doi: 10.1001/jamanetworkopen.2024.11987. Erratum in: JAMA Netw Open. 2024 Jun.

[6] Carwile JL, Ahrens KA, Seshasayee SM, Lanphear B, Fleisch AF. Predictors of Plasma Fluoride Concentrations in Children and Adolescents. Int J Environ Res Public Health. 2020 Dec 9;17(24):9205. doi: 10.3390/ijerph17249205. PMID: 33317121; PMCID: PMC7764416.

[7] **Fluoride, Neurodevelopment, and Cognition: A National Toxicology Program Monograph.** Fluoride, Neurodevelopment, and Cognition: A National Toxicology Program Monograph — Collaborative for Health & Environment

[8] Kirthiga M, Murugan M, Saikia A, Kirubakaran R. Risk Factors for Early Childhood Caries: A Systematic Review and Meta-Analysis of Case Control and Cohort Studies. Pediatr Dent. 2019 Mar 15;41(2):95-112. PMID: 30992106; PMCID: PMC7100045.

and monitored. Above the age of 6 a baby pea size of toothpaste may provide some benefit when spitting and rinsing prior to swallowing is learned and monitored.

Caregivers should watch their child's neck as they brush and spit and rinse and spit again to ensure the child is not reflexively swallowing. If in doubt, leave toothpaste out. Brains are more important than teeth.

To minimize a chronic toxic intake of fluoride, children should avoid foods high in fluoride, such as mechanically deboned meat which can have bone meal, and tea. Organic foods may contain less fluoride pesticide. Topical fluoride may have slight benefit in caries reduction[9] although fluoride varnish will increase plasma fluoride concentrations. The best choice for prevention of dental cavities is to reduce risk with a healthy whole unrefined foods and careful hygiene.

Guidance for adults: Do not swallow fluoride toothpaste. Avoid drinking water containing more than 0.2 ppm fluoride. Some foods are high in fluoride and should be limited.

For 15 years, I have been coming to the BOH requesting, begging, petitioning 22 times for the Board to give the people of Washington, our patients, FREEDOM and stop the Board and Department from harming millions of Washington residents. The Board has refused to protect the public with even a simple label.

People have fought and died for freedom, but we should not have to fight authorities to give us basic human rights, Freedom.

Dental caries are not highly contagious, infecting others and killing them. Fluoridation is not like a vaccine intended to prevent the spread of dental caries.

The purpose of adding an EPA contaminated contaminant to public water is to treat each individual in an attempt to mitigate their bad diet and bad hygiene.

Options with freedom, include supplements and toothpaste, black tea, non-organic foods.

However, supplements, do not force compliance. The only reason to add the fluoride to public water is to try and shove it down our throats without our consent. Consent which the Board has ferociously blocked and denied.

Except, about half the water we drink is bottled water, costly, increasing plastic pollution and PFAS exposure. Public Health Authorities should not be trusted regarding fluoride.

A recent review by the Cochrane Collaboration found less than a 4% reduction in tooth decay from fluoridation.

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[9] Uhlen-Strand MM, Stangvaltaite-Mouhat L, Mdala I, Volden Klepaker I, Wang NJ, Skudutyte-Rysstad R. Fissure Sealants or Fluoride Varnish? A Randomized Pragmatic Split-Mouth Trial. J Dent Res. 2024 Jul;103(7):705-711. doi: 10.1177/00220345241248630. Epub 2024 May 8. PMID: 38716723; PMCID: PMC11191655.

The 2024 LOTUS study, which included over 6 million adults in England, was the largest, strongest study of fluoridation effectiveness in adults ever done and found virtually no benefit: a lifetime reduction in decay of only 2%. An accompanying economic analysis for the LOTUS study found the meager dental bill savings would be worth only about $1 a year per person; not enough to buy a single cup of coffee. Furthermore, the LOTUS analysis did not consider the capital costs of new fluoridation schemes, let alone the cost of adverse effects like reduced IQ and dental fluorosis.

The LOTUS study was also proceeded by a large 10-year fluoridation study in the northwest of England, called the CATFISH study, which concluded that fluoridation's effects on tooth decay in children are "very modest" and "much smaller than previous studies have reported" [Goodwin 2022]. The CATFISH study found, at best, marginal dental and economic benefits.

Please provide a forum as RCW requires.

Sincerely,

Bill Osmunson DDS MPH

Washington Action for Safe Water

From: bill teachingsmiles.com
Sent: 1/6/2025 12:49:16 PM
To: DOH WSBOH,Bartlett, Heather (ECY),Pendowski, Jim (ECY),Wolt, Katie (ECY)
Subject: EMERGENCY: NTP Second Half Published 1/6/2025

External Email

Dear Board and Department of Health and Authorities,

EMERGENCY ACTION REQUIRED

Today, another very powerful study was just published in the Journal of American Medical Association Pediatrics.
https://jamanetwork.com/journals/jamapediatrics/fullarticle/2828425
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fjamanetwork.com%2Fjournals%2

This evidence is additional evidence to our 22 petitions for rule change.

"this systematic review and meta-analysis of 74 cross-sectional and prospective cohort studies found significant inverse associations between fluoride exposure and children's IQ scores."
When fluoride goes up in mom's urine, IQ goes down in her child.
For 15 years, we have been coming to the Board and Authorities requesting, pleading, commenting and petitioning the Board to protect the developing fetus and infants in Washington State. This has been done with no profit to us and great expense, pain and suffering.
The Board has for 15 years consistently refused to even hold a forum to discuss the science, 3 months ago I was told the Department would look into our concerns. . . silence is a form of censure. And the public is being harmed.
"RCW 43.20.050
<https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fapp.leg.wa.gov%2FRCW%2Fdefaul

Powers and duties of state board of health—Rule making—Delegation of authority—Enforcement of rules.
(1) The state board of health shall provide a forum for the development of public health policy in Washington state. It is authorized to recommend to the secretary means for obtaining appropriate citizen and professional involvement in all public health policy formulation and other matters related to the powers and duties of the department. It is further empowered to hold hearings and explore ways to improve the health status of the citizenry."

The Board and Department have cherry picked science, people and laws, and continued to harm the public's health.
The Board has explicit and unreserved trust in the fluoridation lobby, profit making industry and professionals, rather than science. Endorsements are not science. Observational opinion is not randomized controlled trials. A clinician's opinion is just their opinion and not science.
The Board, Department and Authorities are complicit in harming the public, just as Donald Trump did not riot at the capital one year ago, but encouraged the riot. The Board, Department of Health and authorities are likewise complicit and alleged guilty.
1.□□□□The SDWA prohibits the EPA from adding anything to water for the treatment of humans. (EPA treats water, not humans)
2.□□□□The FDA CDER claims they do not regulate tap water. (Finger pointing, circular jurisdiction, lack of accountability)

3.□□□□The National Health Assessment and Nutrition Evaluation Survey reports over half of children have dental fluorosis, a biomarker of excess fluoride exposure.
4.□□□□The US Federal Court after 7 years and 9 days in court, the best experts your taxes could purchase (hundreds of thousands of dollars) by the EPA and your patients paid experts (hundreds of thousands of dollars) lawyer fees of even more, Court time with tax money, to try and gain FREEDOM for all of us . . . the Court ruled fluoridation is an "unreasonable risk." The Court reported about 3 IQ loss for the average mother's offspring and about 7 IQ loss for the 90th percentile fluoride exposure. Some claim the Court is not peer reviewed science. The Court used science which had been peer reviewed multiple times and the Court is an ultimate peer reviewer.
5.□□□□The National Toxicology Program reporting a moderate confidence of lower IQ in their first publication last year and today, 1/6/2025, reports an inverse relationship when urine fluoride measurements are included.
6. □□□The National Research Council (2006) reporting possible harm from fluoride to virtually every cell of the body.
7.□□□□The Washington State Board of Pharmacy determining fluoride is a legend drug.
8.□□□□No known dosage has been determined for benefit.
a.□□□□Lack of benefit, CDC sworn testimony: https://fluoridealert.org/content/cdc-we-dont-promote-fluoride-use-for-in-utero-benefits/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Ffluoridealert.org%2Fcontent%2Fcdc-we-dont-promote-fluoride-use-for-in-utero-benefits%2F&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7C7f36a2eb6d324aeada3008dd2e934623%

b.□□□CDC sworn testimony:□https://fluoridealert.org/content/cdc-fluoride-supplements-do-not-provide-a-benefit-for-children-when-given-during-pregnancy/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Ffluoridealert.org%2Fcontent%2Fcdc-fluoride-supplements-do-not-provide-a-benefit-for-children-when-given-during-pregnancy%2F&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7C7f36a2eb6d324aeada3008dd2e93462

C.□□□□CDC sworn testimony: Lack of benefit during first six months of life: https://fluoridealert.org/content/cdc-fluoridated-water-does-not-provide-a-benefit-during-the-first-6-months-of-life/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Ffluoridealert.org%2Fcontent%2Fcdc-fluoridated-water-does-not-provide-a-benefit-during-the-first-6-months-of-life%2F&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7C7f36a2eb6d324aeada3008dd2e934623%7C1

D.□□□□CDC sworn testimony, no benefit to children if mother swallows fluoride: https://fluoridealert.org/content/cdc-no-benefit-to-childrens-teeth-if-fluoride-is-swallowed-by-their-mother/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Ffluoridealert.org%2Fcontent%2Fcdc-no-benefit-to-childrens-teeth-if-fluoride-is-swallowed-by-their-mother%2F&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7C7f36a2eb6d324aeada3008dd2e934623%

9.□□□□After 80 years of mass medication and only one randomized controlled trial (Leverett 1997) has been published on benefit of ingesting fluoride and it did not report a statistical benefit.
10.□□□It past time for the Board and Department of Health to:

1.

□□□□They RCW, immediately, as an emergency, hold a forum this week. This is an emergency crisis. Nights, weekends, 24/7 emergency. And the solution to the pollution is simply turning off the pumps.
2.

Remove all endorsements of "safe and effective" and "cost effective" and

encouragement and support for fluoride ingestion off the Board and Department's website.
3.

Recommend an immediate cessation of fluoridation under RCW 38.52.010 <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fapp.leg.wa.gov%2FRCW%2Fdefaul (6)(a) "Catastrophic incident" means any natural or human-caused incident, including terrorism and enemy attack, that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, or government functions."

and (13)(a) "Emergency or disaster" as used in all sections of this chapter except RCW 38.52.430 <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fapp.leg.wa.gov%2FRCW%2Fdefaul means an event or set of circumstances which: (i) Demands immediate action to preserve public health, protect life, protect public property, or to provide relief to any stricken community overtaken by such occurrences; or (ii) reaches such a dimension or degree of destructiveness as to warrant the governor proclaiming a state of emergency pursuant to RCW 43.06.010 <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fapp.leg.wa.gov%2FRCW%2Fdefaul . (Governor) Also RCW 70A.125.040 <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fapp.leg.wa.gov%2FRCW%2Fdefaul

4.

Submit to the Washington Legislature a request to rescind RCW 57.08.012 <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fapp.leg.wa.gov%2FRCW%2Fdefaul and 10.

11. Only the Board and Department are regulatory agencies who still persist in recommending fluoridation.

I made millions of dollars both selling fluoride and treating dental fluorosis cosmetic and functional harm. The Board and Department are dishonest and lose public confidence when claiming fiction is fact or science will never change policy.

The cost of harm each year for a person on fluoridated water is well over $400/year/person X 4 million on fluoridated water in Washington State is about $1,600,000,000 a year, or about $4.4 million harm each day of the 365 days a year. Each day the Board delays is a loss of over $4 million just for lower IQ and dental fluorosis. And then add the harm to all the other cells such as thyroid, bones, kidneys, GI tract, etc.

This is a 911 call for emergency action.

Please don't get me wrong, spending Board time protecting a child from possibly hitting their head on the bottom of a swimming pool is certainly valid. However, far more time should be put into 400 million people mass medicated by the Board and Department's recommendation.

The Court spent 8 years reviewing science under the Toxic Substance Control Act.

The NTP spent 9 years reviewing just one risk from fluoride.

The NRC 2006 spent 3 years reviewing evidence on many risks.

The Board spends 3 minutes a few times a year and assures the public fluoridation is both safe and effective when the Board does not have a single study of safety to the developing human brain.

Once again, consider the Guidance the Board should be providing to the public:

Guidance for the fetus: Girls and women wanting to become pregnant someday should avoid drinking water with greater than 0.2 ppm of fluoride[1] or swallowing fluoride toothpaste, and should avoid foods high in fluoride for 20 years prior to pregnancy. Mothers, during pregnancy, should avoid drinking fluoridated water, avoid swallowing fluoride toothpaste, avoid fluoride dental products, avoid foods high in fluoride such as

tea,[2] and with advice from your doctor avoid medications that may release significant amounts of fluoride.
Guidance for infants: Infants thrive best on their mother's milk. A mother's body biologically blocks virtually all fluoride, protecting babies naturally. A second-best option is a formula made with water containing less than 0.01 ppm of fluoride, when possible.[3] (Mother's milk has a mean concentration of 0.004 ppm). No fluoride toothpaste for infants.
Early Childhood Cavities is significantly increased by putting a baby to sleep and prolonged sleep with a bottle of formula or juice.[4] When teeth erupt, wiping them gently with a soft cloth or playing with a small tooth brush can be helpful in reducing mouth phobia.
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A dental visit, happy visit, by age 1 is encouraged for caregiver instruction on reducing dental cavities. A dental visit by age 3 is important.
Guidance for children: Avoid drinking water with more than 0.2 ppm of fluoride. Swallowing is a reflex, and children tend to swallow candy-flavored toothpastes, which can harm their development. Children should avoid fluoride toothpaste prior to competency in spitting and rinsing and spitting, and once again rinsing and spitting prior to swallowing. Read the toothpaste label.
No fluoride toothpaste prior to age 2 (some toothpaste labels advise 12 years of age). From age 2 to 6 a small grain of rice size of fluoride toothpaste may be used, when spitting prior to swallowing is learned and monitored. Above the age of 6 a baby pea size of toothpaste may provide some benefit when spitting and rinsing prior to swallowing is learned and monitored.
Caregivers should watch their child's neck as they brush and spit and rinse and spit again to ensure the child is not reflexively swallowing. If in doubt, leave toothpaste out. Brains are more important than teeth.
To minimize a chronic toxic intake of fluoride, children should avoid foods high in fluoride, such as mechanically deboned meat which can have bone meal, and tea. Organic foods may contain less fluoride pesticide. Topical fluoride may have slight benefit in caries reduction[5] although fluoride varnish will increase plasma fluoride concentrations. The best choice for prevention of dental cavities is to reduce risk with a healthy whole unrefined foods (reduced sugar intake) and careful hygiene.
Guidance for adults: Do not swallow fluoride toothpaste. Avoid drinking water containing more than 0.2 ppm fluoride. Some foods are high in fluoride and should be limited.
Sincerely,
Bill Osmunson DDS MPH
Washington Action for Safe Water

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Washington State Board of Health January 3, 2025

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Please provide a forum as RCW requires.

Sincerely,

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Washington Action for Safe Water

Washington State Board of Health January 3, 2025

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Washington Action for Safe Water

WASHINGTON STATE BOARD OF HEALTH

Peter Browning, MCA
Board Member, County Elected Official Serving on a Local Board of Health

Peter Browning grew up on an organic farm on the Nooksack River in Whatcom County. Early experiences revolved around swimming, fishing, and hunting on the river.

Peter went on to Washington State University and their Hotel and Restaurant Management program. Peter has experience in the business world from owning a restaurant company in Aspen, Colorado. He also holds a Masters in Cultural Anthropology from Western Washington University which led to work in AIDS research for the University of Washington and Seattle King County.

Peter was hired by Skagit County, WA to run their Public Health Department for about twenty years and is now a County Commissioner for Skagit County. Peter has taught anthropology in community colleges and was clinical faculty for the University of Washington School of Public Health.

Peter loves living in the Northwest because of all the opportunities to be active outdoors.

WASHINGTON STATE BOARD OF HEALTH

Ashley Noble
Policy Advisor

Ashley Noble joined the Washington State Board of Health (Board) as a Policy Advisor on November 16. She comes to the Board from the Department of Health (Department), where she was an Analyst for the Certificate of Need Program. Before joining the Certificate of Need team, Ashley was a Lead Policy Advisor in the Division of Prevention and Community Health (PCH) for almost six years. Ashley led a team of five analysts in PCH, reviewed legislation, conducted research, and developed policy recommendations.

Before her employment with the Department, Ashley held progressively responsible policy positions for the National Conference of State Legislatures (NCSL). In this position, she conducted original research, analyzed policies, and facilitated meetings and focus groups. She also served as an Environmental Law Clerk for the NCSL Environment, Energy, and Transportation Program.

Ashley received her Juris Doctor from the University of Denver Strum College of Law, along with certificates in Environmental and Natural Resources Law and International Law. She received a Master of Public and International Affairs from the Virginia Polytechnic Institute and State University. She also holds a Bachelor of Arts with a double major in Political Science and Environmental Studies from the University of North Carolina at Wilmington.

Ashley moved to Washington from Denver, Colorado about seven years ago. When she's not working, she enjoys kayaking, traveling, and spending time with her pets.

Jasmine Alik
Engagement & Partnership Coordinator

Jasmine Alik joined the Governor's Interagency Council on Health Disparities (Council) on December 2, 2024. In this role, she will help the Council build relationships with communities and partners across the state.

Prior to joining the Council, Jasmine led outreach efforts for the Marshallese community with several organizations, including the Tacoma-Pierce County Health Department, the University of Arkansas for Medical Sciences, and the Republic of the Marshall Islands National Nuclear Commission. In these roles, she provided culturally relevant health education, connected community members to resources, and worked to bridge relationships between communities to advance health justice efforts.

Jasmine is passionate about ethical and meaningful community engagement, with emphasis on building capacity within community and on centering the lived experiences of community members. She looks forward to exercising these shared values with the Council through this position.

Judith Barba Perez
Engagement & Partnership Coordinator

Judith Barba Perez joined the Governor's Interagency Council on Health Disparities (Council) on December 2, 2024. Judith is a passionate and committed advocate with more than a decade of experience working alongside underserved communities, including Latinx, Indigenous, and immigrant populations in Mexico and in the United States. She has focused her career on community organizing, leadership development, and improving access to critical resources for everyone.

Being a first-generation immigrant and a mother, Judith is deeply committed to advocating for the needs of underserved communities. She has the passion and dedicates her work to creating equitable opportunities that prevent the community from accessing essential resources.

Throughout her career in higher education, non-profit, and government sectors, Judith has been involved in numerous initiatives aimed at improving the community wellbeing, from organizing local events to creating support networks that assist families navigating health, education, and legal systems. Her focus is on elevating the voices of marginalized individuals and fostering inclusive spaces where all community members can participate and thrive.

In her past roles as a community advocate and leadership development, she was able to build connections and mobilized resources to strengthen community engagement. She approaches every challenge with a belief in the power of collective action, determined to create lasting changes for future generations.

Being a queer immigrant mother, Judith brings a unique perspective and passion to her work, always striving to leave a better and more inclusive world for her daughter and all families in the state of Washington.

STATE OF WASHINGTON
OFFICE OF GOVERNOR JAY INSLEE

DIRECTIVE OF THE GOVERNOR

24-19

Date: December 2, 2024
To: Executive and Small Cabinet Agency Directors
From: Governor Jay Inslee
Subject: Freeze on Hiring, Services Contracts, Goods and Equipment Purchases, and Travel

Because the latest revenue forecasts show the cost and need for services are increasing faster than revenue, the state is facing a significant operating budget deficit.

Effective December 2, 2024, for all agencies under my direction and control, I am directing a freeze on the following: (1) hiring not related to public safety or other non-discretionary activities as listed below, (2) execution of non-essential services contracts, (3) discretionary purchasing of goods and equipment, and (4) travel.

Exempt from the freeze is hiring to fill vacancies in critical areas. Also, services contracts, goods and equipment purchases, and travel that are necessary to continue critical services or agency operations are exempt from the freeze.

Agencies shall comply with instructions issued by the Office of Financial Management (OFM) regarding this directive. All questions related to this directive should be directed to OFM.

Hiring
The hiring freeze does not apply to positions that:

- directly impact public safety,
- are essential to the health and welfare activities of state government,
- generate revenue, or
- are required to meet statutory mandates or federal requirements.

While implementing this order, agencies shall comply with the appropriate collective bargaining agreement provisions.

Services contracts
The freeze on services contracts does not include contracts, contract amendments, or other agreements:

- costing less than $10,000,
- related to the protection of life or public safety,
- tax collection or other revenue-generating activities,
- those funded exclusively from private or federal funding sources, or
- approved information technology projects.

Goods and equipment purchases
The freeze on goods and equipment purchases does not apply to equipment:

- costing less than $10,000,
- necessary to protect life or public safety,
- necessary to carry out the core functions of the agency, or
- funded by private or federal grants.

Travel
The freeze on travel does not apply to the following:

- essential to the responsibilities of a position,
- necessary to protect life or public safety,
- tax collection or other revenue-generating activities, or
- funded by private or federal grants.

Guidance to other agencies
I recognize the practical difficulties of implementing this directive to maintain the financial health of the state. I call upon non-cabinet agencies, higher education institutions, boards and commissions, and other separately elected officials to impose similar restrictions within their agencies and jurisdictions.

While this is a difficult endeavor, I ask each agency to participate and use common sense, good judgment, and creativity to accomplish the ultimate goal of this directive to capture immediate savings through spending reductions not related to the public safety and essential health and welfare of Washingtonians.

This directive will remain in effect until rescinded.

STATE OF WASHINGTON
WASHINGTON STATE BOARD OF HEALTH
PO Box 47990 • Olympia, Washington 98504-7990

Dr. Umair A. Shah
Secretary
Washington State Department of Health
101 Israel Road SE
Tumwater, WA 98501

Sent via email

Umair:

I want to express the Board's appreciation for your service to the people of Washington state over the last four years. You came to Washington amid the COVID-19 pandemic and led the Department of Health with a focus on equity, innovation, and engagement.

I know that you are deeply committed to supporting underserved communities across our state and that you have worked to improve partnership with the private sector and actively promoted the extraordinary work being carried out by Washington's public health system.

The Board appreciates the dedication, passion and commitment you have shown to preventing disease and improving the public's health during a very challenging time. Thank you for your partnership and support of the governmental public health system and our Foundational Public Health Services effort.

We wish you and your family all the best.

Sincerely,

Patty Hayes

Patty Hayes,
Chair

WASHINGTON STATE BOARD OF HEALTH

2024 STATE HEALTH REPORT

The Washington State Board of Health has monitored public health and been a forum for public health policies since 1889. One way it does that is by making recommendations to the Governor's office and Legislature through its State Health Report. The report highlights suggestions for public health priorities and policy recommendations for the next two years.

Guided by the principle
'Nothing about us, without us,'

Board Members and staff connected with community members through panels and one-on-one discussions while creating the 2024 State Health Report.

Discussions focused on people's experiences with the current public health and healthcare systems, barriers to accessing care, and health priorities in their communities...

Highlights of the 2024 recommendations to the Legislature and Governor

DATA EQUITY

Improve Data Equity in Washington State Through Data Reform

HEALTHCARE ACCESS

COMMUNITY-DRIVEN SERVICES

Improve Healthcare Access and Increase the Availability of Culturally Appropriate Care.

STRENGTHEN INVESTMENTS

SCHOOL ENVIRONMENTAL HEALTH

Re-envision the Quality of Care in Washington by Increasing Access to Community-Driven, Culturally and Linguistically Relevant Services.

DECREASE USE OF TOBACCO PRODUCTS

ENVIRONMENTAL JUSTICE

Support Public Health Improvements to Mitigate Environmental Hazards and Promote Environmental Justice.

ONGOING DISCUSSION

sboh.wa.gov

WASHINGTON STATE BOARD OF HEALTH

Date: January 8, 2025

To: Washington State Board of Health Members

From: Paj Nandi, Board Member

Subject: Petition for Rulemaking WAC 246-290-220, Drinking Water Materials and Additives – Possible Action

Background and Summary:

The Administrative Procedure Act (RCW 34.05.330) allows any person to petition a state agency for the adoption, amendment, or repeal of any rule. Upon receipt of a petition, the agency has sixty days to either (1) deny the petition in writing, stating the reasons and, as appropriate, offer other means for addressing the concerns raised by the petitioner, or (2) accept the petition and initiate rulemaking.

On November 24, 2024, the State Board of Health (Board) received a petition from Washington Action for Safe Water and Bill Osmunson, DDS MPH. The petitioners request the Board consider amending WAC 246-290-220, Drinking Water Materials and Additives, within the Group A Public Water Supplies rules.

The Board has the authority under RCW 43.20.050 to adopt rules for Group A public water systems as defined in RCW 70A.125.010. Chapter 246-290 WAC establishes the standards for these water systems related to their design, construction, sampling, management, maintenance, and operation practices. The purpose of these rules is to define basic regulatory requirements and to protect the health of consumers using public drinking water supplies.

The petitioners request that the Board amend WAC 246-290-220 to include a new subsection related to water fluoridation that states the following:

> In keeping with the Federal Safe Drinking Water Act S.433 and the Food Drug and Cosmetic Act, Title 21, the Board of Health does not recommend any substance be added to water with intent to treat humans, unrelated to treatment of water as defined in RCW 18.64.011(14)(15) or 21 U.S. Code § 321(g)(1), unless approved by the Food and Drug Administration in compliance with the U. S. Food, Drug and Cosmetic Act. This recommendation does not apply to substances added to water to make water safer as determined by the U.S. Environmental Protection Administration in compliance with the Safe Drinking Water Act.

(continued on the next page)

The petitioner included attachments to support the request, located in the Board materials. Shay Bauman, Board Staff, will present the Board Members with information related to the petition and recommendations.

Recommended Board Actions:

The Board may wish to consider and amend, if necessary, the following motions:

The Board declines the petition for rulemaking to amend WAC 246-290-220 for the reasons articulated by Board Members. The Board directs staff to notify the petitioner of the Board's decision.

OR

The Board accepts the petition for rulemaking to explore the proposed amendment to WAC 246-290-220 to consider additional language related to water fluoridation. The Board directs staff to notify the requestor of its decision and to file a CR-101, Preproposal of Inquiry, to further evaluate the request and possible rule change.

Staff

Shay Bauman, Policy Advisor

Washington State Board of Health
Policy & Procedure

Policy Number:	**2005-001**
Subject:	**Responding to Petitions for Rule-Making**
Approved Date:	**November 9, 2005 (revised August 13, 2014)**

Policy Statement

RCW 34.05.330 allows any person to petition a state agency to adopt, repeal, or amend any rule within its authority. Agencies have 60 days to respond. The agency can deny the request—explaining its reasons and, if appropriate, describing alternative steps it is prepared to take—or it must initiative rule-making. If a petition to repeal or amend a rule is denied, a petitioner can appeal the agency's decision to the Governor.

This policy defines who must be notified and consulted when the Board is petitioned, who may respond on behalf of the Board, and whether Board action is required.

- **Board Response**: When the Board receives a written petition for rule-making within its authority that clearly expresses the change or changes requested, the Board will respond within 60 days of receipt of the petition. The response will be made at the direction of the Board. The response will be in the form of a letter from the Chair denying the petition or informing the petitioner the Executive Director has been directed to initiate rule-making.

- **Consideration of the Petition:** The Chair may place a petition for rule-making on the agenda for a Board meeting scheduled to be held within 60 days of receipt of the petition. Alternatively, if the Board does not have a regular meeting scheduled within 60 days of receipt of the petition, or if hearing the petition at the next regular meeting would defer more pressing matters, the Chair shall call a special meeting of the Board to consider the petition for rulemaking.

Procedure

- **Notifications:** Board staff, in consultation with the Executive Director, will respond to the petitioner within three business days acknowledging receipt of the petition and informing the petitioner whether the request is clear. The Executive Director or staff will notify Board members that a petition for rule-making has been received and will be brought to the Board for consideration at the next regularly scheduled board meeting or will be considered at a special meeting. If

no regular meeting is scheduled before the 60-day response deadline, or if the agenda for the regular meeting cannot accommodate the petition, the Executive Director will notify the Chair of the need to schedule a special board meeting for the purposes of considering the petition. Upon Board action on the petition, the Executive Director shall assure Board members receive electronic copies of the final petition response.

- **Appeals:** If a petitioner appeals the Board's decision to deny a petition to the Governor, the Executive Director will inform the Board of the Governor's action on the appeal at the next scheduled Board meeting.

- **Consultation:** The Executive Director and Board staff will gather background information for the Board's use when it considers the petition. In this regard, the Executive Director will consult with the Board member who sponsored the most recent revisions to the rule being challenged or the appropriate policy committee. The Executive Director may also consult with appropriate representatives of the implementing agency or agencies, and may consult with stakeholders as appropriate.

WSBH Petition #22. November 24, 2024

Washington State Board of Health

PO Box 47990, Olympia, WA 98504-7990 wsboh@doh.wa.gov

Petitioners: Washington Action for Safe Water and Bill Osmunson DDS MPH

Dear Washington State Board of Health

Consistent with health and safety issues in Title 246, Title 173, Title 296, WAC 173-340, and WAC 296-62-07521; this petition is made in compliance with RCW 34.05.330 and WAC Chapter 82-05.

This petition is for amendment to WAC 246-290-220

"(8) In keeping with the Federal Safe Drinking Water Act S.433 and the Food Drug and Cosmetic Act, Title 21, the Board of Health does not recommend any substance be added to water with intent to treat humans, unrelated to treatment of water as defined in RCW 18.64.011(14)(15) or 21 U.S. Code § 321(g)(1), unless approved by the Food and Drug Administration in compliance with the U. S. Food, Drug and Cosmetic Act. This recommendation does not apply to substances added to water to make water safer as determined by the U.S. Environmental Protection Administration in compliance with the Safe Drinking Water Act."

With this 22nd petition for rule making which follows 21 others over 14 years, this current Board appears to be having a hard time understanding what previous Boards came to slowly realize, that water is different than humans. Water (H_2O) is what humans drink. Different agencies regulate water than regulate drugs intended to treat humans or animals.
Congress gave jurisdiction over the treatment of water to the EPA. (SDWA)
Congress gave jurisdiction over the treatment of humans to the FDA. (FD&C Act)

If the Board intends to treat water, consult the EPA, not the FDA. And if the Board intends to treat humans, go to the FDA and not the EPA. The Department and Board said they relied on known National entities and we list here National, state and international entities in support of our petition.

Previous scientific, legal and ethical evidence submitted to the Board in the past 21 Petitions for rule change must be included with this petition. The Department has those on file. In addition, a powerpoint presentation with audio was prepared for the Board for review: https://www.youtube.com/watch?v=d7DA02SNd5M

The Surgeon General of Florida, Dr. Joseph Ladapo, advised all cities and counties statewide to stop adding fluoride to drinking water. According to Fox 13 News, Dr. Ladapo is quoted as saying *"It is public health malpractice with the information that we have now to continue adding fluoride to water,"* mentioning studies that point out the possibility of excessive fluoride exposure causing lower IQ levels and mental health issues among children.

The U.S. Surgeon General (based on FOIA request) went silent on fluoridation a couple years ago.

I. What this amendment does and does not do.

A. This amendment does not prohibit any chemicals from being added to water with intent to treat water.

B. This amendment does not prohibit any water purveyor from adding fluoride to their water as they choose under **RCW 57.08.012**. However, sovereign immunity may not apply to public health malpractice.

C. This amendment would remove the Board's flawed, misleading, unscientific and harmful endorsement of fluoridation from their website, which we requested 14 years ago.

D. About 5 million people in Washington State are on fluoridated water. About 5% or 250,000, are pregnant and if these moms to be drink the fluoridated water, they will be harming the developing brain and more of their new baby. Some similarities to drinking alcohol or drinking leaded water, if those were intentionally force fed by authorities on the advice of the Board. A benchmark dose of 0.2 ppm fluoride in water has been determined both by Grandjean and Chen in the Court ruling. However, even if the Board claims 1.5 mg/L in water is the threshold of harm, pregnant mothers advised to drink 10 glasses of water a day would have fetuses probably harmed. The Board must stop endorsing fluoridation as safe.

E. In our past petitions, the Board has relied on endorsements, unauthorized agencies, and the fluoridation lobby making money off of fluoride and fluoridation. This time the Board is requested to carefully consider laws and science with intent to protect the health of everyone, especially our most vulnerable.

F. The Board must protect the public rather than the profits of the dental lobby.

G. Potential harms are reported by the National Research Council in 2006 to such structures and physiologic functions such as:

a. cell function,

b. teeth,

c. skeleton,

d. chondrocyte metabolism,

e. arthritis,

f. reproductive and developmental effects,

g. neurotoxicity,

h. neurobehavioral effects,

i. endocrine system,

j. gastrointestinal,

k. renal,

l. hepatic,

m. immune systems,

n. genotoxicity,

o. carcinogenicity,

p. and more recently concerns of potential low birth weight, miscarriage, and increased infant mortality have been raised.

q. Over nearly 2 decades science has confirmed and supported and raised confidence that the NRC 2006 report was correct and the public is being harmed with too much fluoride.

r. The Board needs to provide the public with safety studies for each of those risks and efficacy studies at a quality acceptable to the FDA.

s. The law requires FDA CDER approval for substances manufactured with intent to prevent disease.

The National Toxicology Program (NTP) under order of the Court in 2023 released their draft report on the state of the science and meta-analysis of the data, and in 2024 the state of the science was published. Although HHS and the fluoridation lobby were able to slightly alter the NTP draft, the meta-analysis has still not been published, in part because the data is more difficult to alter and quash than expert evaluation.

While we fight each other over fluoridation, harming the public, costing them a ton of money in harm, we could be spending time working on safer and more effective methods of caries reduction.

In 2024, the Cochrane Collaboration[1] also released their latest report on the benefit of fluoridation. " Water fluoridation for the prevention of dental caries. Although the main author reported no conflict of interest, the co-author on the previous review is also the Co-Director of the Colgate-Palmolive Dental Health Unit supporting fluoride use and (at least in the past) receiving millions of dollars. A clear bias in favor of fluoride. Follow the money.

The report results *included:*

> *"Based on contemporary evidence (after 1975), the initiation of CWF may lead to a slightly greater change in dmft over time (mean difference (MD) 0.24, 95% confidence interval (CI) -0.03 to 0.52; P = 0.09; 2 studies, 2908 children; low-certainty evidence). This equates to a difference in dmft of approximately one-quarter of a tooth in favour of CWF; this effect estimate includes the possibility of benefit and no benefit. Contemporary evidence (after 1975) was also available for change in DMFT (4 studies,*

[1] Iheozor-Ejiofor Z, Walsh T, Lewis SR, Riley P, Boyers D, Clarkson JE, Worthington HV, Glenny AM, O'Malley L. Water fluoridation for the prevention of dental caries. Cochrane Database Syst Rev. 2024 Oct 4;10(10):CD010856. doi: 10.1002/14651858.CD010856.pub3. PMID: 39362658; PMCID: PMC11449566.

2856 children) and change in DMFS (1 study, 343 children); we were very uncertain of these findings."

***"Authors' conclusions:** Contemporary studies indicate that initiation of CWF may lead to a slightly greater reduction in dmft and may lead to a slightly greater increase in the proportion of caries-free children, but with smaller effect sizes than pre-1975 studies. There is insufficient evidence to determine the effect of cessation of CWF on caries and whether water fluoridation results in a change in disparities in caries according to socioeconomic status. We found no eligible studies that report caries outcomes in adults. The implementation or cessation of CWF requires careful consideration of this current evidence, in the broader context of a population's oral health, diet and consumption of tap water, movement or migration, and the availability and uptake of other caries-prevention strategies. Acceptability, cost-effectiveness and feasibility of the implementation and monitoring of a CWF programme should also be taken into account."*

Put that information in your mind under "benefit." The Cochrane evaluation did not look at risks. Ignored all risks and known harm. The confidence level was "may," not "known" or "probable." Mt Rainer "may" erupt today. The word "may" does not provide confidence to mass medicate everyone with an illegal drug at uncontrolled dosage, without a doctor's prescription or oversight, adulterated, misbranded, contaminated, and at the express refusal of many patients.

Although RCW does not instruct the Board to determine any benefit and only risk to the public from fluoridation, the fluoridation lobby has testified to the Board of the alleged benefit of fluoridation. Consider once again, the arbitrary act of mass medication of everyone without their individual consent, without SDWA or FD&C Act or FDA approval, with known risk of dental fluorosis harm, and other unreasonable risks especially to the brains, authority controlled, which may, just may lead to a quarter tooth fewer cavities per child. The NTP's "moderate" confidence of brain damage is higher than the confidence of "may" benefit.

In simple terms 0.25 cavities vs 3 to 8 IQ loss. I can fix teeth but not IQ loss.

II. Fluoridation is a violation of the Federal Safe Drinking Water Act S.433

A. Fluoridation does not comply with the U.S. Safe Drinking Water Act (SDWA) which prohibits drugs from being added to water and the Board of Health's promotion gives fluoridation drug purveyors confidence and basis for violating the SDWA. Words matter.

B. The Board relies on the Office of Drinking Water to assure safe water and the ODW has a formal agreement with the SDWA for oversight.

C. The Washington Office of Drinking Water's Mission statement includes:

"We regulate Group A public water systems under state law and a formal agreement with the U.S. Environmental Protection Agency (EPA) for carrying out the federal Safe Drinking Water Act, which establishes minimum standards for drinking water quality."

D. The U.S. federal Safe Drinking Water Act standard of, 1974, 1986 and 1996 (SDWA), is crystal clear**: *"No national primary drinking water regulation may require the addition of any substance for preventive health care purposes unrelated to contamination of drinking water. "*** 42 USC 300g-1(b)(11):

However, to ensure clarity, the EPA was contacted in a Freedom of Information Act requesting EPA's understanding of the SDWA, and the EPA responded:

"The Safe Drinking Water Act prohibits the deliberate addition of any substance to drinking water for health-related purposes other than disinfection of the water."

FOIA Request HQ-FOI-01418-10 What about the word "prohibits" is so hard for the Board of Health to understand?

D. The EPA does not have standards for drugs. The addition of drugs to water is prohibited by the Safe Drinking Water Act.

The EPA Water Law Office responded to our question of jurisdiction between FDA and EPA for adding drugs to the water supply for health care purposes. The EPA Water Law Office responded: ***"The FDA, remains responsible for regulating the addition of drugs to the water supply for health care purposes."*** Steve Neugeboren, Ass. General Counsel, Water Law Office.

Primacy. EPA delegates primary enforcement responsibility (also called primacy) for public water systems to States, territories, and Tribes if they meet certain requirements set by 40 CFR 141. An entity with primacy is the agency with primary responsibility for implementing the SDWA.Jun 8, 2023

The Board of Health responded to our previous petition that the Board relies on "national entities" like the EPA. Relying on the EPA for drug approval is flawed, misguided and harmful to the public.

III. Fluoridation is a violation of the Federal Food, Drug, and Cosmetic Act and subsequent amending statutes are codified into Title 21 Chapter 9 of the United States Code.

(The Board must place priority on protecting the public health, rather than industry profits.)

FDA "A drug is defined as:

- *A substance recognized by an official pharmacopoeia or formulary.*
- *A substance intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease.*
- *A substance (other than food) intended to affect the structure or any function of the body."*
- *How does the law define a drug?*
- *"The FD&C Act defines drugs, in part, by their intended use, as "articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease" and "articles (other than food) intended to affect the structure or any function of the body of man or other animals" [FD&C Act, sec. 201(g)(1)].*
-
- *A substance intended for use as a component of a medicine but not a device or a component, part or accessory of a device."*

How is a product's intended use established?

"Intended use may be established in a number of ways. The following are some examples:

- *Claims stated on the product labeling, in advertising, on the Internet, or in other promotional materials. Certain claims may cause a product to be considered a drug, even if the product is marketed as if it were a cosmetic. Such claims establish the product as a drug because the intended use is to treat or prevent disease or otherwise affect the structure or functions of the human body. Some examples are claims that products will restore hair growth, reduce cellulite, treat varicose veins, increase or decrease the production of melanin (pigment) in the skin, or regenerate cells.*

- *Consumer perception, which may be established through the product's reputation. This means asking why the consumer is buying it and what the consumer expects it to do.*
- *Ingredients that cause a product to be considered a drug because they have a well-known (to the public and industry) therapeutic use. An example is fluoride in toothpaste."*

"Questions regarding laws and regulations for drugs should be directed to FDA's Center for Drug Evaluation and Research (CDER)."

Do cosmetics and drugs have different good manufacturing practice requirements?

"Regarding drugs, the law requires strict adherence to GMP requirements for drugs, and there are regulations specifying minimum current GMP requirements for drugs [Title 21 of the Code of Federal Regulations (CFR), parts 210 and 211]. Drugs that fail to follow GMP requirements are considered to be adulterated [FD&C Act, sec. 501(a)(2)(B)]."

Note: The Final Fluoridation Drug Manufacturer would be the authority adding the fluoride to the water. All fluoridation manufacturers are failing to follow parts 210 and 211 of Title 21 CFR.

The FDA has charged people with operating websites to illegally sell misbranded and unapproved drugs. Fluoridation drugs are misbranded and unapproved.

And people have been sentenced to Federal Prison for illegally selling unapproved drugs.

Or is the Board going to use the American Dental Association excuse as ADA presented in court that the ADA (now the Board) has no duty to protect the public health, the ADA (Board) is only giving their opinion?

When questioned about the scientific evidence for the alleged benefit and safety of fluoridation, the Washington Department of Health responded: “DOH will rely on known national entities like the CDC and EPA to assess the science. . . .” (Letter from DOH)

1. The CDC Oral Health Division does not assess science on drugs and has no scientific papers, label, or dosage on the safety and efficacy of fluoridation. CDC Oral Health Division relies primarily on the fluoridation lobby.

2. The EPA has not determined the safety or alleged efficacy of adding fluoride to public water. The EPA regulates fluoride as a protected contaminant. The EPA did not provide their scientists to the court for their defense in the Toxic Substance Control Act. EPA scientists are competent, they simply disagree with fluoridation and superiors are protecting the practice. The Safe Drinking Water Act prohibits the EPA from adding anything to public water for the treatment of humans.

The Board of Health has put itself as a higher authority and expert disagreeing with the **Food and Drug Administration (FDA).** The Department of Health has not relied on the authorized national authority with oversight of substances used with intent to treat humans.

a. The FDA warns, “Do Not Swallow” on the toothpaste label, referring to 0.25 mg of fluoride. The same dosage as one 11 oz glass of fluoridated water. In other words, the Board should worn the public, “Do Not Swallow more than one glass of this water a day.” Just because Federal Marshals have not shut down water systems does not make fluoridation safe.

b. In a warning to drug manufacturers, the FDA was clear and correct, that the evidence of fluoride’s effectiveness was incomplete. Only one randomized controlled trial of fluoride ingestion has been published and it reported no

statistical evidence of fewer dental caries, i.e. benefit. Yet the Board of Health claims benefit in disagreement with the FDA CDER.

c. The Board's first denial of our request for the Board or water purveyors to apply for FDA CDER NDA (Food and Drug Administration, Center for Drug Evaluation and Research, New Drug Application) would have taken the thorny, complex job of determining the safety, dosage, label, GDMP (Good Drug Manufacturing Practices), product purity, and the legal, ethical, and science off the Board's shoulders and placed the task in the lap of the authorized authorities, the FDA CDER.

d. The science is growing that fluoridation is harming the public. Follow the science rather than trust the fluoridation lobby.

IV. **U.S. District Court is a National Authority and under the Toxic Substance Control Act (TSCA) ruled fluoridation is an unreasonable risk. The ruling in *Food & Water Watch, Inc. v. United States Envtl. Prot. Agency*, 17-cv-02162-EMC (N.D. Cal. Sep. 24, 2024)** Based on 7 years, 4 weeks of two trials, several experts on both sides, and hundreds of thousands of dollars in costs, the court concluded:

"IV. CONCLUSIONS OF LAW

"121. Plaintiffs have proven, by a preponderance of the evidence, that water fluoridation at the level of 0.7 mg/L – the prescribed optimal level of fluoridation in the United States – presents an "unreasonable risk of injury to health or the environment, without consideration of costs or other non-risk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation under the conditions of use."

122. The Court thus orders the Administrator to initiate rulemaking pursuant to Subsection 6(a) of TSCA. . . ."

The Board would be foolish, negligent, and allegedly committing public health malpractice not to immediately stop promoting the addition of what RCW defines as a poison and the Board of Pharmacy exempted from poisons when regulated as a legend drug.

The Court ruling Page 5.

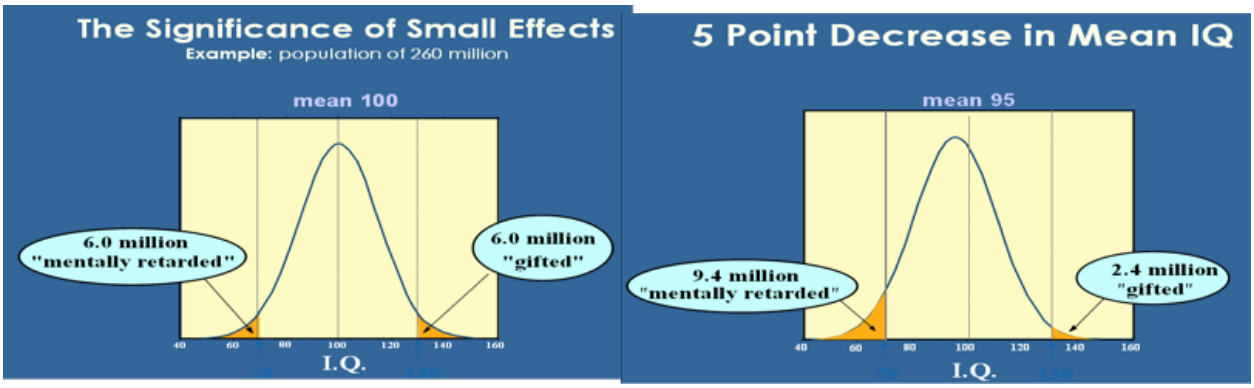
*"The pooled benchmark dose analysis concluded that **a 1-point drop in IQ of a child is to be expected for each 0.28 mg/L of fluoride in a pregnant mother's urine**. This is highly concerning, because maternal urinary fluoride levels for pregnant mothers in the United States range from **0.8 mg/L** at the median and 1.89 mg/L depending upon the*

degree of exposure. Not only is there an insufficient margin between the hazard level and these exposure levels, for many, the exposure levels exceed the hazard level of ***0.28 mg/L****."* (Court supplied emphasis)

Based on data and analysis presented at trial, the Court at page 75 states, "*fluoride presents a risk of a decrease in IQ [for such offspring] ranging from 2.86 to 6.75 points.*" The lower number is the expected median loss and the upper number is the 95th percentile loss applicable to offspring of 1 in 20 mothers who drink the most fluoridated water.

However, we must not ignore the 5% of mothers who drink the most water, fail to fully rinse their mouths out after brushing with fluoride toothpaste and swallow some toothpaste, fail to eat organic foods, or ingest medications high in fluoride and have the highest urine fluoride concentration. About 81,000 babies are born in Washington State each year. About 46% of moms on fluoridated water = 37,260 babies in harm, and 5%, **about 1,840 babies, are estimated to have greater than 6.76 IQ point loss**. And no label for protection. Think lower IQ increases homelessness, special education rates and costs, incarceration rates and costs, increased job loss, divorce rates and more socioeconomic harms.

Consider the charts below from the website of Physicians for Social Responsibility. When a population has 5 IQ loss, the mentally handicapped increase by 60% and we have data on those. We do not have data on the more than 60% decline in gifted or what you and I in the middle could have accomplished with 5 more IQ points.



Not all kidneys function to their optimal level and not all mothers have the same intake of other toxins which have a synergistic effect on the development of the brain of their fetus and infant, such as lead and arsenic.

The fluoridation lobby argues like the tobacco lobby, “but we do not have proof.” When the Judge asked the expert witness in court, “what would it take for you to change your mind?” The expert responded, “one or two more studies.” Many more have been published and the fluoridation lobby still responds, “one or two more studies are needed” and they will always want one or two more and require 100% proof of harm.

The Court Ruling understood the need for a margin of error: P6.

“The EPA’s default margin of error requires a factor of 10 between the hazard level and exposure level due to variability in human sensitivities. Put differently, only an exposure that is below 1/10th of the hazard level would be deemed safe under Amended TSCA, given the margin of error required.”

What is the default margin of error used by the Board of Health? The Board uses no margin of error and no intraspecies variability. None. As though we all are in the median, all wear the same size shoe, all the same age and same height and weight and diet, etc.

P 6. "In all, there is substantial and scientifically credible evidence establishing that fluoride poses a risk to human health; it is associated with a reduction in the IQ of children and is hazardous at dosages that are far too close to fluoride levels in the drinking water of the United States. And this risk is unreasonable under Amended TSCA. Reduced IQ poses serious harm. Studies have linked IQ decrements of even one or two points to e.g., reduced educational attainment, employment status, productivity, and earned wages. Indeed, the EPA recognizes that reduction of IQ poses a serious community health issue."

Once again in case you missed it above. Lower IQ being promoted by the Board of Health is well-know, to result in increased Special Education rates, High School Drop-out rates, lower income, less job stability, less productivity, increased crime, increased homelessness, increased incarceration, increased divorce, decreased self-worth, increased public assistance, increased illicit drug addiction, and decrease gifted and brilliant members of our community. We are all harmed. The Board is intentionally harming the public and refusing to follow the law and even hold a forum.

V. **Washington State Board of Pharmacy**:

The Board of Pharmacy was the highest authority on toxic substances and drugs in Washington State, until moved under the thumb of the Department. The Department of Health and the Board of Health have disagreed with the **Washington State Board of Pharmac**y which determined fluoride to be a legend drug, i.e. requires the patient's doctor's prescription and patient consent rather than poison. See **RCW 69.38.010**

The only legal option under RCW is for fluoride to be regulated as a poison because fluoride is highly toxic and poison laws are very strict and exempt when regulated as a legend drug needing FDA CDER approval with the patient's approval under the supervision of a licensed health care provider. Based on science, laws and ethics, the Board of Pharmacy was indeed correct.

In fact, the Board did call the FDA and the FDA specifically warned the Board that if the Board tried to gain FDA approval, fluoridation would be **banned.** What about "Do Not Swallow", "incomplete evidence" and **"banned"** does the Board not understand and can dismiss as not relevant?

VI. National Toxicology Program (NTP) is most certainly a

National Authority: In 2015, I nominated cancer, thyroid harm and developmental neurotoxicity to the **National Toxicology Program (NTP)** for review. The NTP accepted the developmental neurotoxicity of fluoride for review and told me in a phone call the review usually takes about 2 years, inclusive of animal testing.

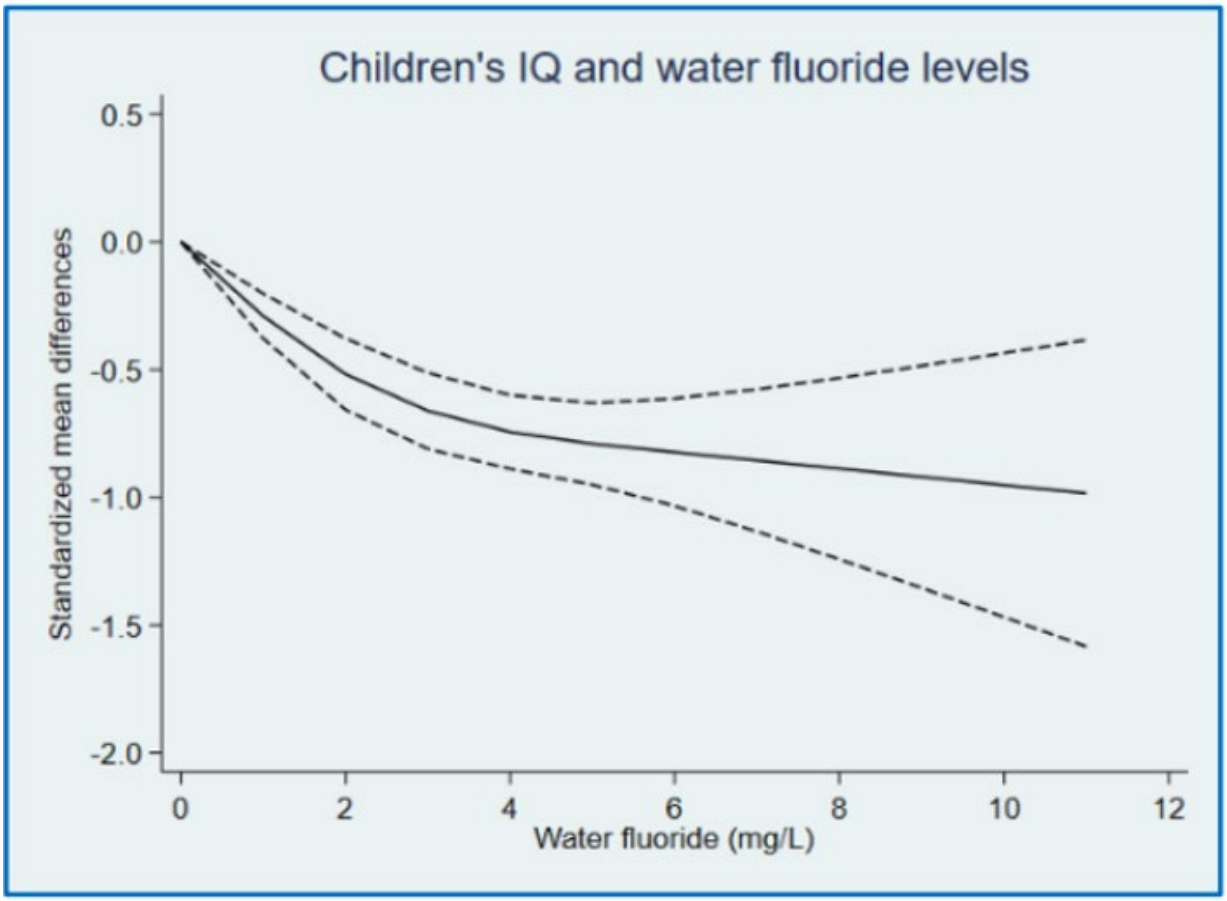
The 700-page draft had repeated peer reviews, (more than one is highly unusual) both internal and external of HHS, including the fluoridation lobby, and was blocked by HHS from release until the Court ordered the draft released. Eight years and eight months after nomination, the first section was published and the meta-analysis which has the strongest conclusions is supposed to be published later this year. The draft reported a presumed developmental neurotoxicant and the published reports moderate confidence. The NTP report did not suggest a "safe" concentration. Below 1.5 mg/L the meta-analysis shows there is no threshold of safety and at 0.7 mg/L fluoride in water has about 3 IQ loss.

A few considerations must be made on the NTP graph eFigure 17. Pooled Dose-Response Association Between Fluoride in water and Standardized Mean Differences in Children's IQ pasted below.

a. About half of fluoride ingested is from water and half from other sources, the NTP listed risk from water and the Board must consider total fluoride exposure. We have added two orange lines at the 1.5 mg/L fluoride concentration in water and the second going over to the standardized mean difference of about 0.4.
b. Water fluoride concentration of 0.7 mg/L is about half (30-70%) the total fluoride exposure. Thus 1.5 mg/L in water is approximately the total fluoride exposure of individuals. The fluoridation lobby and EPA have tried to separate the water from

total fluoride exposure. Real-world exposure is total fluoride and the two cannot and should not be separated. Thus, 1.5 mg/L is used here and the orange lines demonstrate the approximate 0.4 standardized mean difference (SMD).

c. The fluoridation lobby will discount 0.4 SMD as not significant, and they would be correct if SMD were the same as IQ. However, 1 SMD is 15 IQ points and 0.4 is 6 IQ point loss.



and 1.89 mg/L is not exactly the same as the concentration of fluoride in water, 0.7 mg/L accounting for various quantities of water consumed and other sources of fluoride. About half the fluoride is retained in the body (depending on kidney function etc.) and about half is excreted. And about half the total exposure of fluoride is from water and about half (estimated 30-70%) from other sources. Thus, the Court's 0.8 mg/L fluoride in urine is similar to 0.7 mg/L fluoride in water.

For ball park estimations, urine and water concentrations are reasonably comparable. And 1.89 mg/L represents a reasonable variation in water consumption for up to the 95th percentile of mothers. On page 75 of the Court's findings the 95th percentile of mothers drinking 2-3 liters of water a day with children having 6.75 points IQ loss is reasonable.

e. As stated earlier, the Board cannot call fluoridation safe for a mother drinking the average of 1 liter per day of fluoridated water. Mothers drinking 2 to 3 liters of water are at the 95th percentile and their children would probably have 6.75 IQ loss. Even worse are the 5% of mothers who drink more than 2 to 3 times times the mean/media. A few mothers drinking for example 4 liters of water a day would expect closer to a 10 IQ point loss for their child.

VII. Based on FOI documents, **the U.S. Surgeon General** quietly stopped endorsing fluoridation and the Florida Stat Surgeon General called fluoridation "public health malpractice" and directed all fluoridating cities to stop.

VIII. **The U.S. Environmental Protection Agency scientists** through their union: *"In summary, we hold that fluoridation is an unreasonable risk. That is, the toxicity of fluoride is so great and the purported benefits associated with it are so small - if there are any at all – that requiring every man, woman and child in America to ingest it borders on criminal behavior on the part of governments."* Dr. J. William Hirzy, Senior Vice-President, Headquarters Union, US Environmental Protection Agency, March 26, 2001

IX. **The Centers for Disease Control:** CDC: “Ingestion of fluoride is not likely to reduce tooth decay.” Drinking Water to Prevent Dental Caries. MMWR, 48(41); 933-940, October 22, 1999 Achievements in Public Health, 1900-1999:

The Oral Health Division of the CDC is in the pocket of the American Dental Association and seldom in statements even alters the words enough to avoid plagiarism.

The CDC does not approve drugs, the FDA CDER has drug approval authority. The CDC does provide free drugs for investigational purposes, fluoride is not one.

X. **International authorities opposed to fluoridation. 97% of Europe** is fluoridation free. Most developed countries do not fluoridate public water.

XI. Austria REJECTED: "toxic fluorides" NOT added

XII. Belgium REJECTED: encourages self-determination – those who want fluoride should get it themselves.

XIII. Finland STOPPED: "...do not favor or recommend fluoridation of drinking water. There are better ways of providing the fluoride our teeth need." A recent study found ..."no indication of an increasing trend of caries....“

XIV. Germany STOPPED: A recent study found no evidence of an increasing trend of caries

XV. Denmark REJECTED: "...toxic fluorides have never been added to the public water supplies in Denmark.“

XVI. Norway REJECTED: "...drinking water should not be fluoridated“

XVII. Sweden BANNED: "not allowed". No safety data available!

XVIII. Netherlands REJECTED: Inevitably, whenever there is a court decision against fluoridation, the dental lobby pushes to have the judgment overturned on a technicality or they try to get the laws changed to legalize it. Their tactics didn't work in the vast majority of Europe.

XIX. Hungary STOPPED: for technical reasons in the '60s. However, despite technological advances, Hungary remains unfluoridated.

XX. Japan REJECTED: "...may cause health problems...." The 0.8 -1.5 mg regulated level is for calcium-fluoride, not the hazardous waste by-product which is added with artificial fluoridation.

XXI. Israel SUSPENDED mandatory fluoridation until the issue is reexamined from all aspects.: June 21, 2006 “The labor, welfare and health Knesset committee” As of 2024 still suspended.

XXII. China BANNED: "not allowed“

XXIII. International Academy of Oral Medicine and Toxicology is opposed to fluoridation. Position paper

XXIV. American Academy of Environmental Medicine “Fluoridation has been called one the ten great public health achievements of the 20th century by the Centers of Disease Control in the US. As research continues to unfold the truth about the use of this supposed ‘healthy mineral’ has become clear. Fluoridation is more likely one of the ten most dangerous public health practices in this country and in the world. The American Academy of Environmental Medicine’s position is that there is absolutely no benefit to public health that Fluoride should be recommended or utilized.”

XXV. **The Nuffield Council, Bioethics on fluoridation:** “public health policy involving the water supply should be considered in relation to:

a. the balance of risks and benefits [brains are more important than teeth]

b the potential for alternatives that rank lower on the intervention to achieve the same outcome. [oral hygiene and diet]

c. the role of consent where there are potential harms"[2] [fluoridation lacks consent and has known harm, more than potential harms.

The US Department of Bioethics has not yet responded and I will inform the Board when they respond.

Thank you for considering this our 22nd petition regarding protecting the public health.

Sincerely,

Bill Osmunson DDS MPH

Washington Action for Safe Water

[2] Ethics Consultation Report Ethical Considerations in Community Water Fluoridation, by the Public Health Agency of Canada's Public Health Ethics Consultative Group, December 18, 2018 p.2. https://www.caphd.ca/sites/default/files/Ethical%20Considerations%20for%20Community%20Water%20Fluoridation.pdf

WSBH Petition #22. December 4, 2024

Washington State Board of Health

PO Box 47990, Olympia, WA 98504-7990 wsboh@doh.wa.gov

Petitioners: Washington Action for Safe Water and Bill Osmunson DDS MPH

Dear Washington State Board of Health

"Addendum A" is an update to our petition #22 for rule change.[1]

Below are the slides from the December 3, 2024 webinar put on by Kayla Taylor PhD et al of the National Toxicology Program's report on fluoride's developmental neurotoxicity.

[1] Consistent with health and safety issues in Title 246, Title 173, Title 296, WAC 173-340, and WAC 296-62-07521; this petition is made in compliance with RCW 34.05.330 and WAC Chapter 82-05.

Our petition for amendment to WAC 246-290-220

"(8) In keeping with the Federal Safe Drinking Water Act S.433 and the Food Drug and Cosmetic Act, Title 21, the Board of Health does not recommend any substance be added to water with intent to treat humans, unrelated to treatment of water as defined in RCW 18.64.011(14)(15) or 21 U.S. Code § 321(g)(1), unless approved by the Food and Drug Administration in compliance with the U. S. Food, Drug and Cosmetic Act. This recommendation does not apply to substances added to water to make water safer as determined by the U.S. Environmental Protection Administration in compliance with the Safe Drinking Water Act."

Of summary and special note:

1. Page 30. “Children in high fluoride communities have statistically significantly lower IQ.”
2. Page 33. “For every 1 mg/L increase in urinary there is a statistically significant decrease in IQ
3. Page 35 For the NTP Monograph which ended May 1, 2020 the NTP reported
   “Consistent inverse association across:
   - 18 of 19 high quality studies
   - 46 of the 53 low quality studies
4. Conclusion of “Moderate Confidence” took over 4 years to get published
5. Note the Addendum
   Literature since May 1, 2020?

- Addendum updated through October 2023 to match timeframe of meta-analysis (in press)

- 28 new studies
  - 12 of 12 high quality studies reported inverse associations (6 in new study populations)
  - 13 of 16 low quality reported inverse associations

6. Of the 19 high quality studies before 2020 and the 12 high quality studies after 2020, only one of the 31 high quality studies did not report harm from fluoride to the developing brain.

During the January, 2024, the two-week court hearing, the hired expert for the EPA's defense was raising doubt of harm to the developing brain based on the 18 of the19 high quality studies reported by the NTP. I was listening as Judge Chen interrupted the prosecution questions and asked the expert, "so what would change your mind?" The expert responded, "one or two more studies reporting harm." I remember screaming at my computer yelling, "that's what the tobacco companies kept saying about the risk of tobacco smoking in the 1970's."

And now the NTP/OHAT reports there are 12 of 12 more high quality studies reporting harm to the developing brain.

Hundreds of thousands of babies over the last 14 years of our petitions have been harmed in Washington State from fluoridation because the Board of Health has refused to even remove their false endorsement that fluoridation is "safe and effective" and "cost effective."

Once again, read our latest published peer reviewed research that when just the cosmetic risk and 3 IQ points are lost the cost estimate is $556 per person per year on fluoridation. http://dx.doi.org/10.1002/puh2.70009

Below are the slides from the NTP/OHAT webinar and sometimes quality is lost so the same slides are attached.

Sincerely,

Bill Osmunson DDS MPH

Washington Action for Safe Water

NTP Monograph
Fluoride Exposure and Neurodevelopment and Cognition
A Systematic Review

Collaborative for Health and the Environment

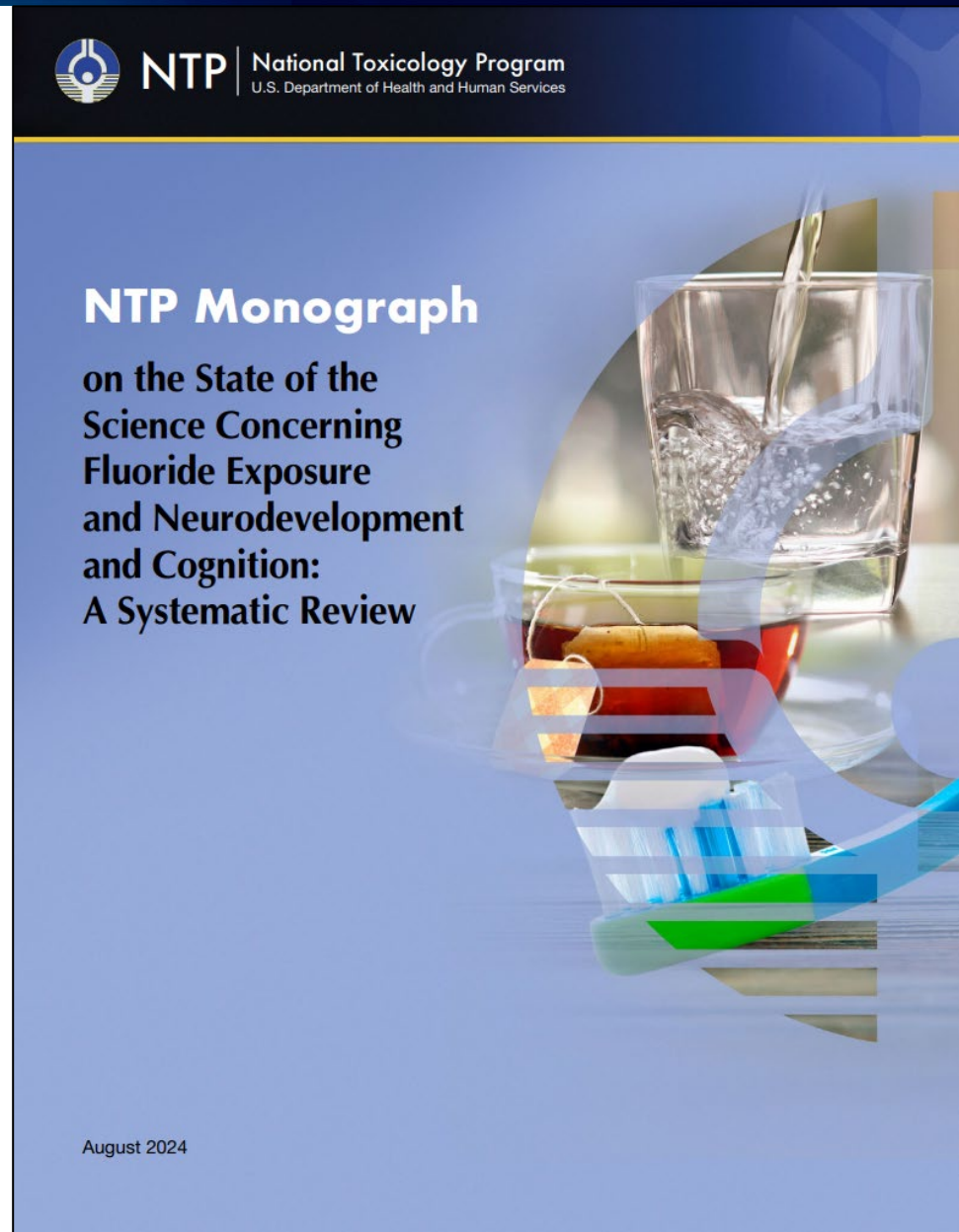
December 3, 2024

Kyla W. Taylor, PhD, John Bucher, PhD, Andrew A. Rooney, PhD

Integrative Health Assessments Branch
Division of Translational Toxicology
National Institute of Environmental Health Sciences

Talk outline

- What is fluoride? The history of U.S. water fluoridation
- NTP Monograph: Fluoride, neurodevelopment, and cognition
- Public health relevance
- Recent federal court ruling and role of the Monograph
- Questions and panel discussion



What is fluoride?

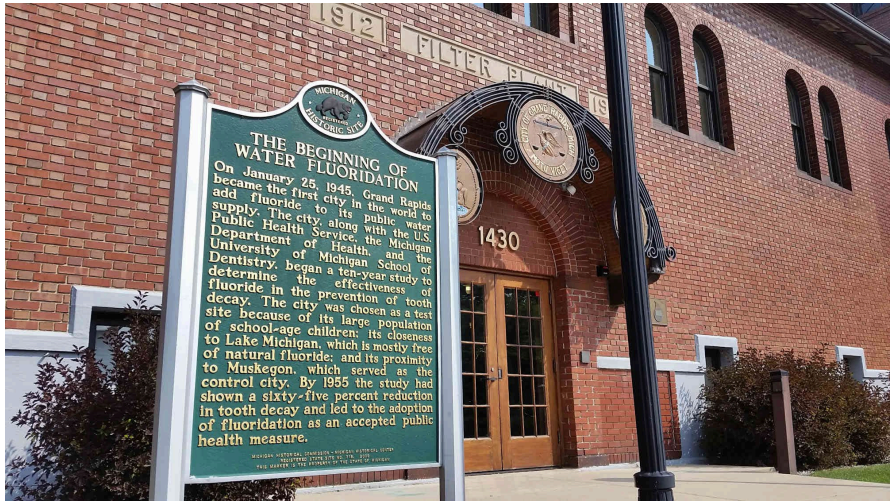
- Naturally occurring mineral
- Topical contact reduces risk of cavities
- Added to drinking water
- Many other sources of exposure

Topical sources

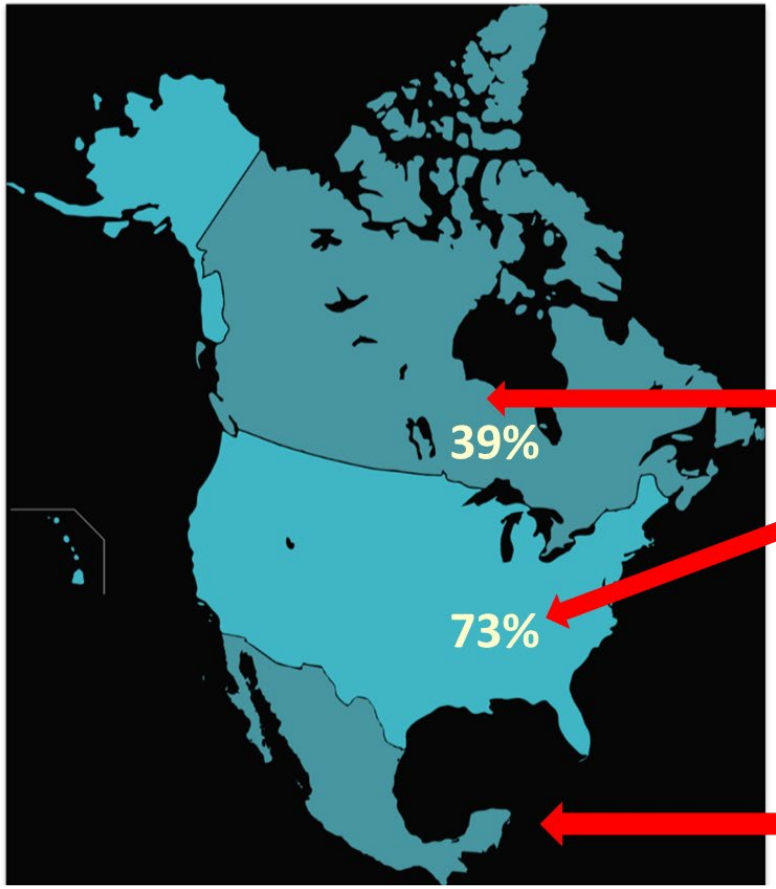
Systemic sources

History of U.S. water fluoridation

- Early 20th century researchers noticed that people living in areas with high levels of fluoride in drinking water had fewer cavities
- First added to drinking water in Grand Rapids, Michigan in 1945
- The U.S. Public Health Service (PHS) first recommended communities add fluoride to drinking water in 1962
- U.S. PHS recommends 0.7 mg/L fluoride added to drinking water
- Community water systems serve about 200 million US residents



Sources of *added* fluoride in North America



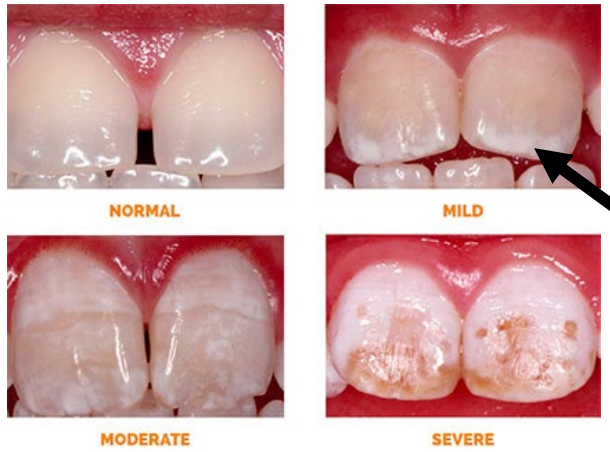
Drinking water
Recommended: 0.7 mg fluoride/L

Salt supply is fluoridated

Public Health Agency of Canada, 2017

Adverse health effects and current drinking water standards and recommendations

- Skeletal fluorosis
  - Bone disease caused by fluoride accumulation in the bones
  - Causes pain and tenderness of the major joints
- Dental fluorosis
  - Mild: Discoloration
  - Moderate to severe: Pitting

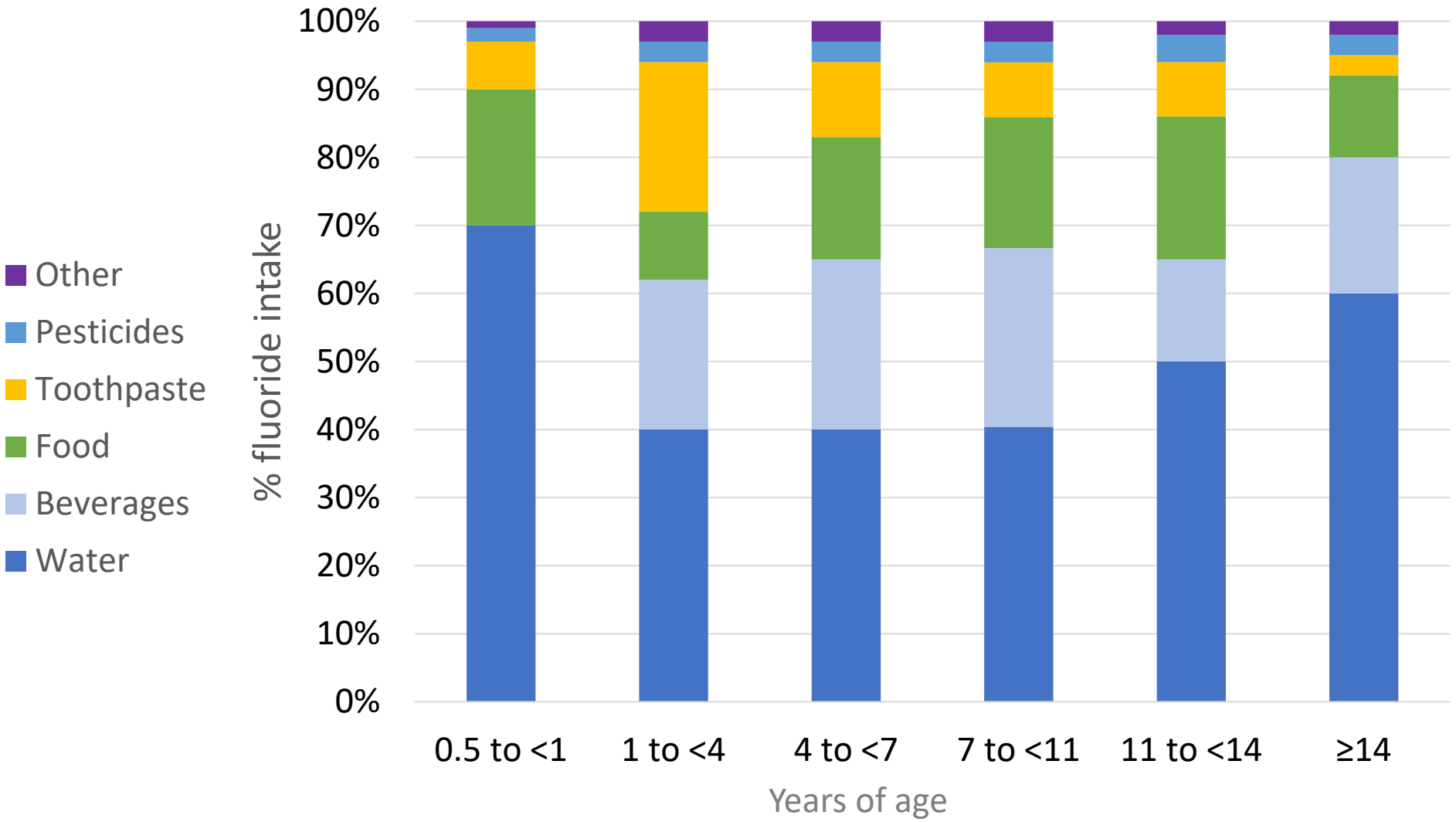


Dental fluorosis is the white discoloration

	Agency	Fluoride drinking water level	US residents served by CWSs above level
Standards (enforceable)	US EPA	4.0 mg/L	> 40,000
Recommendations (non-enforceable)	US EPA	2.0 mg/L	> 1.9 Million
	WHO	1.5 mg/L	> 2.9 Million
	US PHS	0.7 mg/L	>20.5 Million

CWS: Community water system
EPA: Environmental Protection Agency
WHO: World Health Organization
PHS: Public Health Service

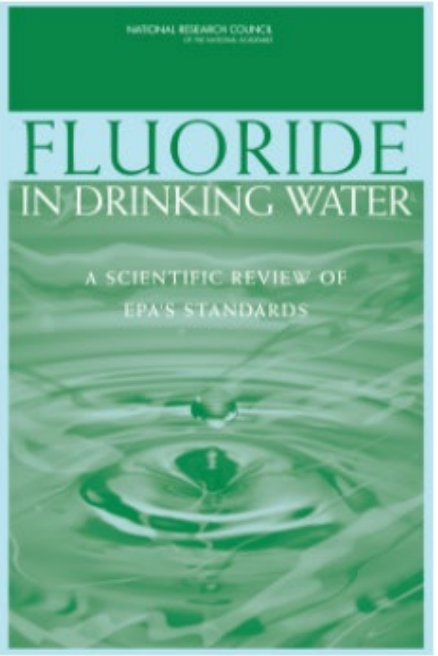
% total fluoride intake in children from various sources, by age



US EPA Fluoride: Exposure and Relative Source Contribution Analysis (2010)

Neurotoxic effects?

- **2006:** National Research Council (NRC) reported evidence of neurotoxic effects of fluoride
- Fetal and developing brains are especially vulnerable to neurotoxicants
- Concern that some pregnant women and children may be getting more fluoride than they need because they now get fluoride from many sources and the combined total intake of fluoride may exceed safe amounts
- Fetal exposure
  - Fluoride from maternal blood crosses placenta
  - Fluoride stored in bone and remobilized into bloodstream during pregnancy
- Formula-fed infants residing in fluoridated communities:
  - 3-4 times greater exposure to fluoride than adults on a per body-weight basis
  - ~70-fold higher fluoride intake than exclusively breastfed infants

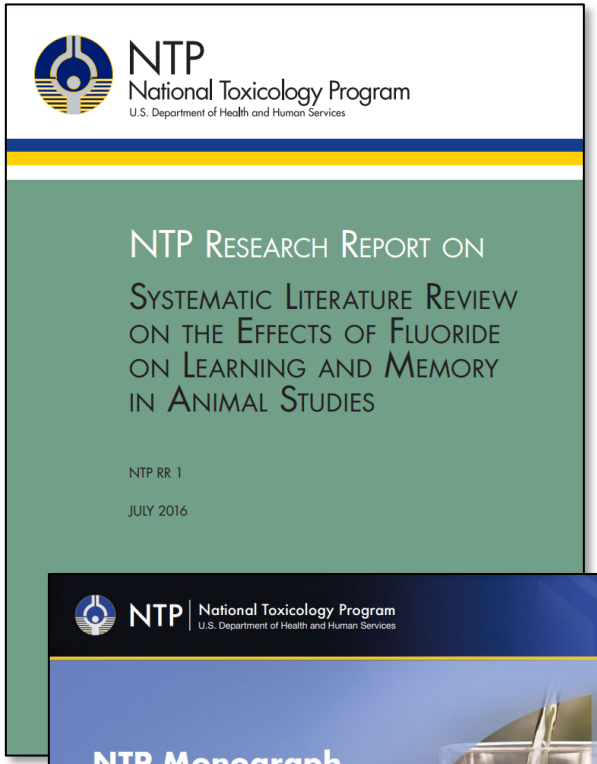


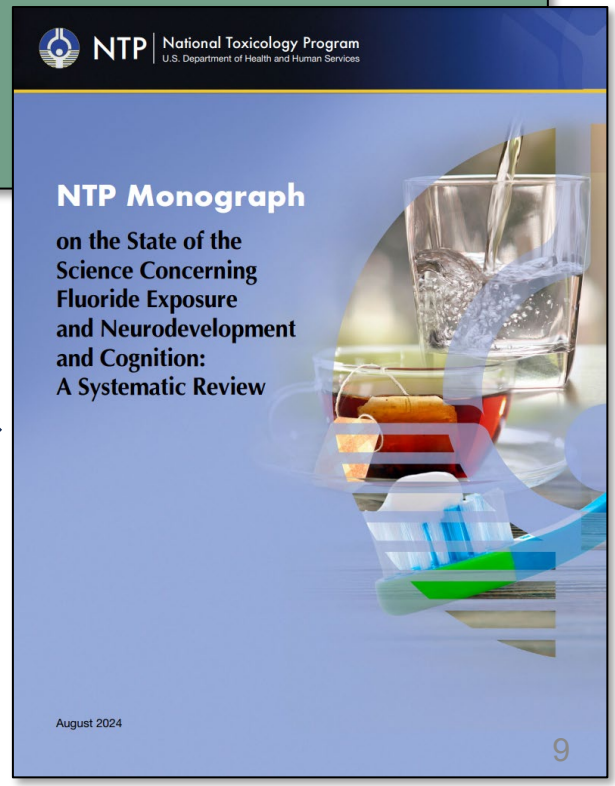
Fluoride as a topic for evaluation at the National Toxicology Program (NTP)

- **2015:** Topic of fluoride exposure & adverse health effects nominated to NTP
- **2016:** NTP Monograph (animal studies only) published
  - Systematic review of animal studies found *low to moderate* evidence of adverse effects on learning and memory

2nd NTP systematic review to evaluate potential neurodevelopmental and cognitive effects of fluoride in the human, animal, and mechanistic/*in vitro* literature

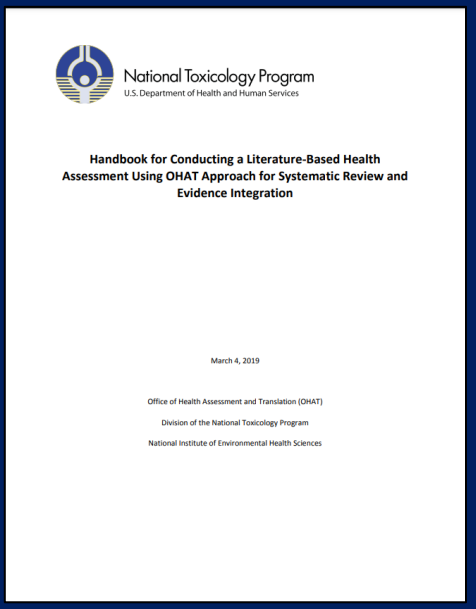
Published August 2024





What is systematic review?

- Transparent and rigorous method for identifying, evaluating, and summarizing every single relevant study published on a topic
- Look for patterns across a body of evidence, and develop conclusions based on the best available evidence
- **OHAT approach to systematic review**, developed in 2014, is a framework for systematic review and evidence integration across human, animal, mechanistic studies
  - Developed to address challenges with reproducibility, transparency
  - Leading edge of bringing systematic review methodology to toxicology and environmental health
- Given **importance and scrutiny** of public health decisions, adherence to standardized methods is essential


National Toxicology Program
U.S. Department of Health and Human Services

Handbook for Conducting a Literature-Based Health Assessment Using OHAT Approach for Systematic Review and Evidence Integration

March 4, 2019

Office of Health Assessment and Translation (OHAT)

Division of the National Toxicology Program

National Institute of Environmental Health Sciences


Research

Systematic Review and Evidence Integration for Literature-Based Environmental Health Science Assessments

Andrew A. Rooney, Abee L. Boyles, Mary S. Wolfe, John R. Bucher, and Kristina A. Thayer

Office of Health Assessment and Translation, Division of the National Toxicology Program, National Institute of Environmental Health Sciences, National Institutes of Health, Department of Health and Human Services, Research Triangle Park, North Carolina, USA

Introduction

Methods

OHAT Handbook: https://ntp.niehs.nih.gov/sites/default/files/ntp/ohat/pubs/handbookmarch2019_508.pdf

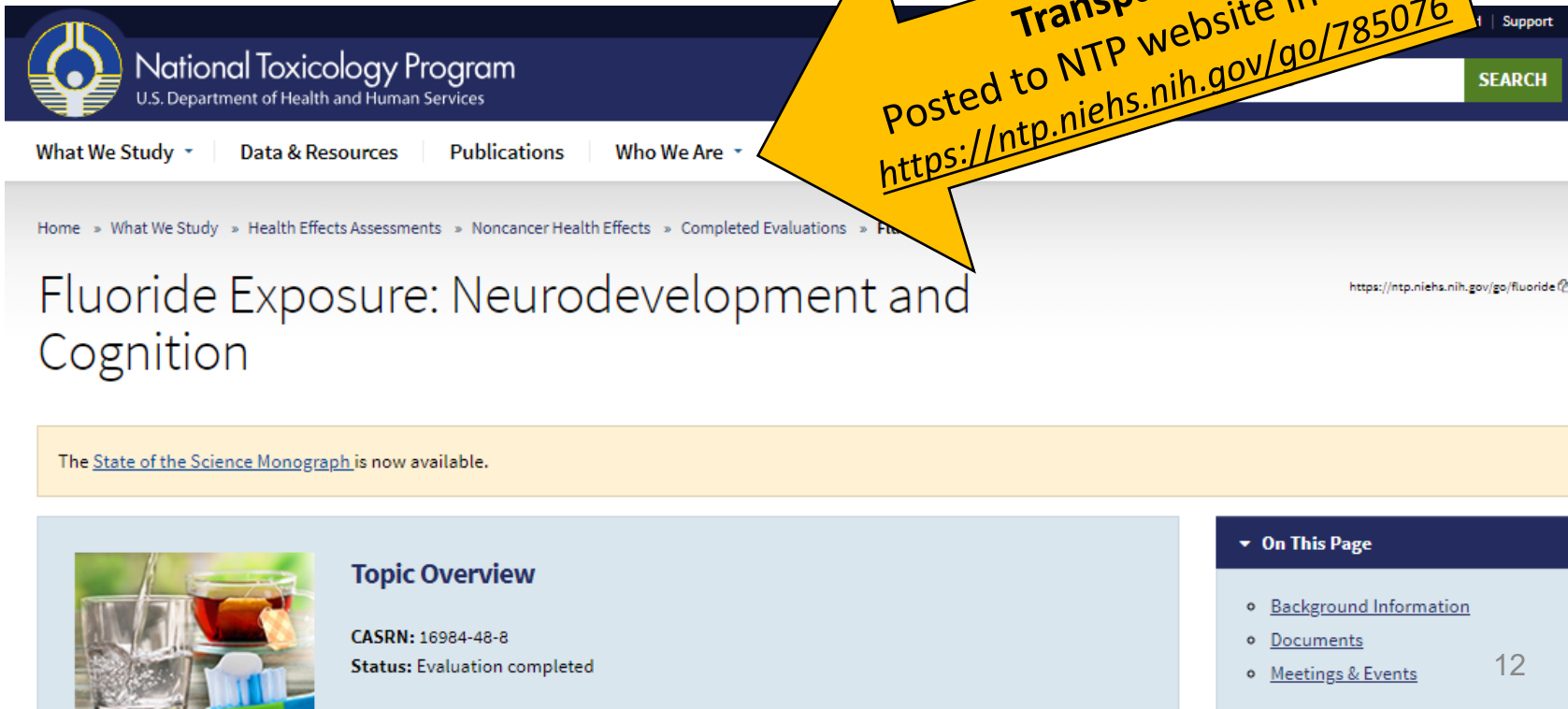
OHAT approach to systematic review

- Systematic Review
  - Planning and protocol development
  - Identify evidence
    - Comprehensive literature search
    - Literature screening
  - Evaluate evidence
    - Extract data
    - Risk of bias assessment

OHAT approach to systematic review

- **Systematic Review**
  - **Planning and protocol development** →
    - Refined research question, developed detailed protocol with input from technical experts
    - Formal peer review of protocol
  - Identify evidence
    - Comprehensive literature search
    - Literature screening
  - Evaluate evidence
    - Extract data
    - Risk of bias assessment

Transparency
Posted to NTP website in 2017
https://ntp.niehs.nih.gov/go/785076



OHAT approach to systematic review

- **Systematic Review**
  - Planning and protocol development
  - **Identify evidence**
    - **Comprehensive literature search**
    - **Literature screening**
  - Evaluate evidence
    - Extract data
    - Risk of bias assessment

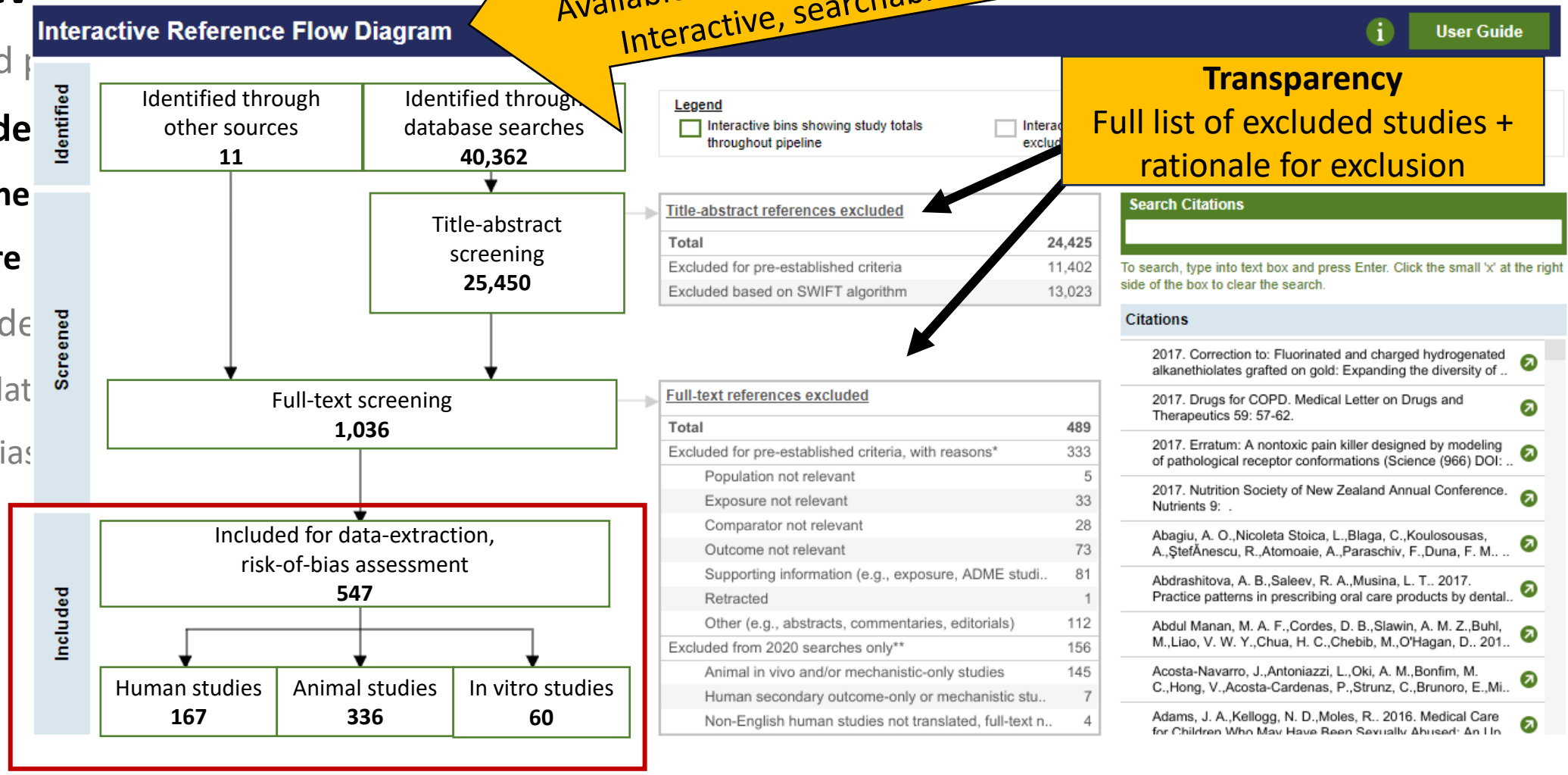
- Comprehensive literature search of eight databases through May 1, 2020 (***Addendum update through October 2023***)
  - BIOSIS, EMBASE, PsychINFO, PubMed, Scopus, Web of Science, CNKI, and Wanfang
  - Peer reviewed articles, no language restrictions
- References screened for relevance (2 independent reviewers)
  - Selection based on predefined Population, Exposure, Comparator, and Outcome (PECO) criteria to avoid bias

OHAT approach to systematic review

- **Systematic Review**
  - Planning and p
  - **Identify evide**
    - **Comprehe**
    - **Literature**
  - Evaluate evide
    - Extract dat
    - Risk of bias

Transparency
Available through NTP website
Interactive, searchable

Transparency
Full list of excluded studies + rationale for exclusion

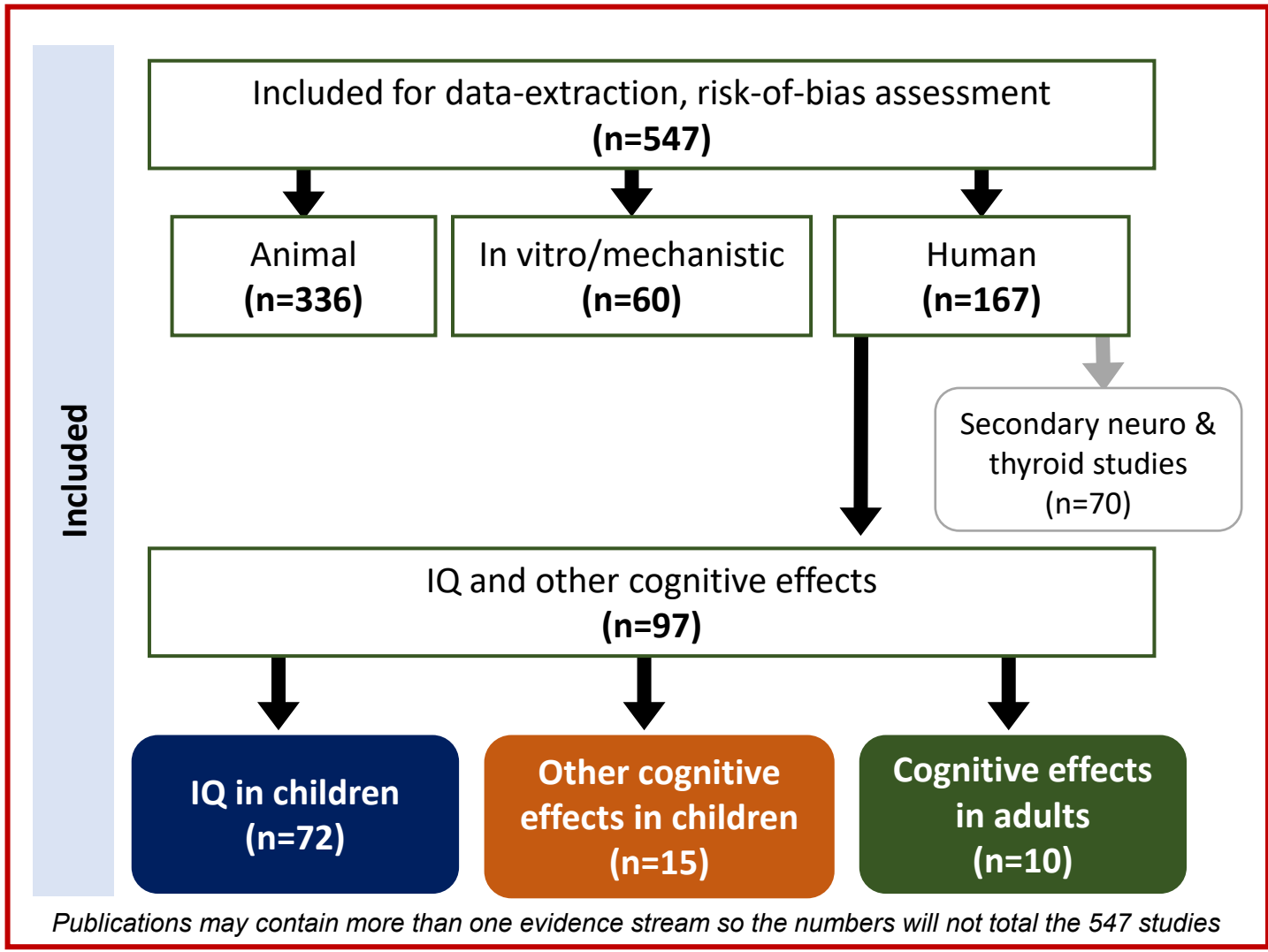


https://hawcproject.org/summary/visual/assessment/405/Figure-2/

Systematic review focuses on the human studies

- 547 human, animal, mechanistic/ in vitro studies considered relevant
- Experimental animal learning and memory data ***inadequate*** to inform assessment of neurodevelopment and cognitive effects in humans
- In vitro/mechanistic studies too heterogeneous and limited to make determination on biological plausibility (e.g., changes in thyroid hormone)

Details for each evidence stream available in NTP Monograph



OHAT approach to systematic review

- **Systematic Review**
  - Planning and protocol development
  - Identify evidence
    - Comprehensive literature search
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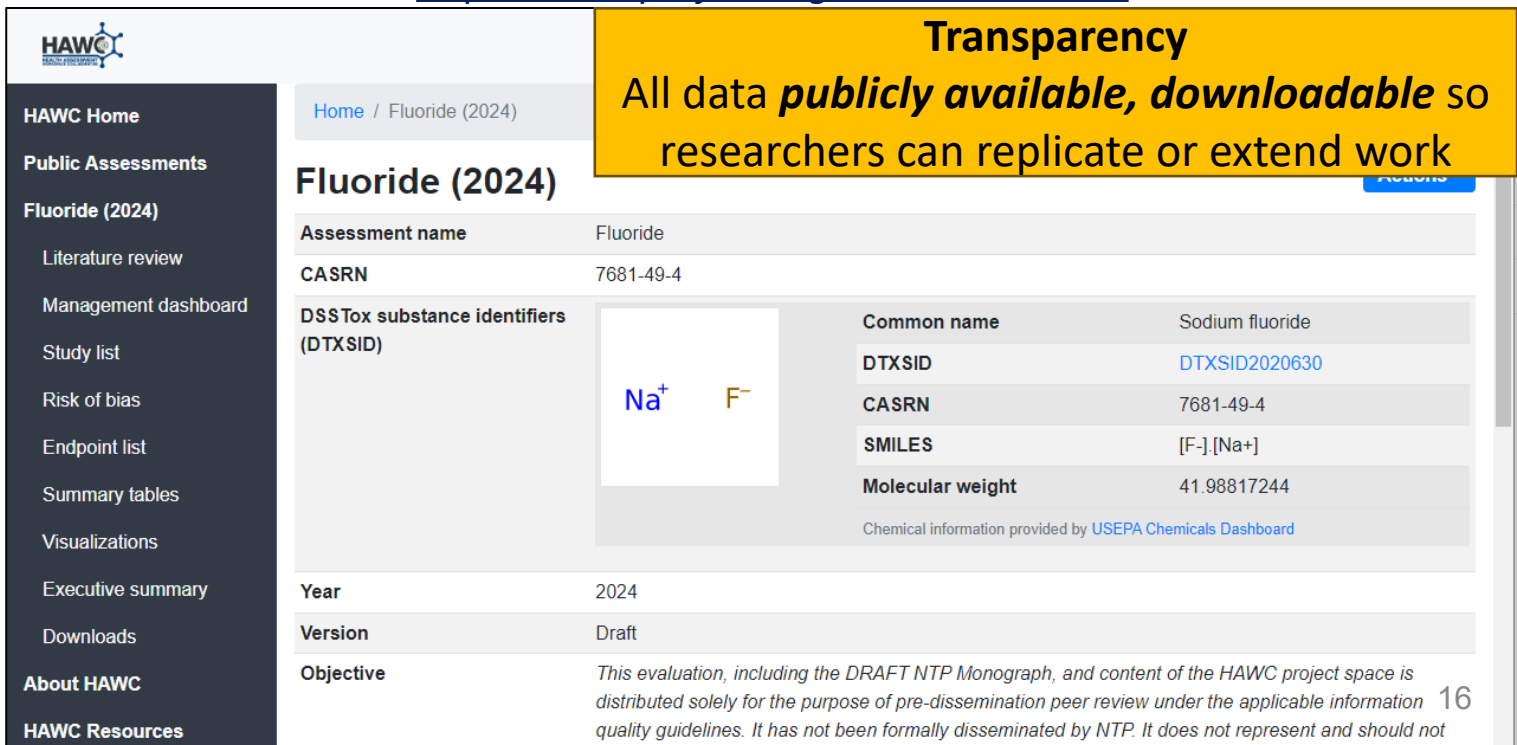
  - **Evaluate evidence**
    - **Extract data**
    - Risk of bias assessment

- Open source, web-based application for data extraction and visualizations
- Health Assessment Workspace Collaborative (HAWC) developed at DTT, NIEHS (*Shapiro et al., 2018)*

https://hawcproject.org/assessment/405

Transparency
All data ***publicly available, downloadable*** so researchers can replicate or extend work



OHAT approach to systematic review

- **Systematic Review**
  - Planning and protocol development
  - Identify evidence
    - Comprehensive literature search
    - Literature screening
  - **Evaluate evidence**
    - Extract data
    - **Risk of bias assessment**

- Evaluate **7 risk-of-bias domains**
  - ✓ Confounding bias
  - ✓ Exposure characterization
  - ✓ Outcome assessment
  - Selection bias
  - Attrition bias
  - Selective reporting
  - Other (e.g., statistical analyses)

Key domains: Greatest potential to impact results of a study

Risk of Bias Ratings	
- -	Definitely high
-/NR	Probably high or NR
+	Probably low
++	Definitely low

NR: Not reported

Transparency
Interactive risk of bias ratings and rationale for each individual study available in HAWC

https://hawcproject.org/assessment/405

Identify “high quality” and “low quality” studies

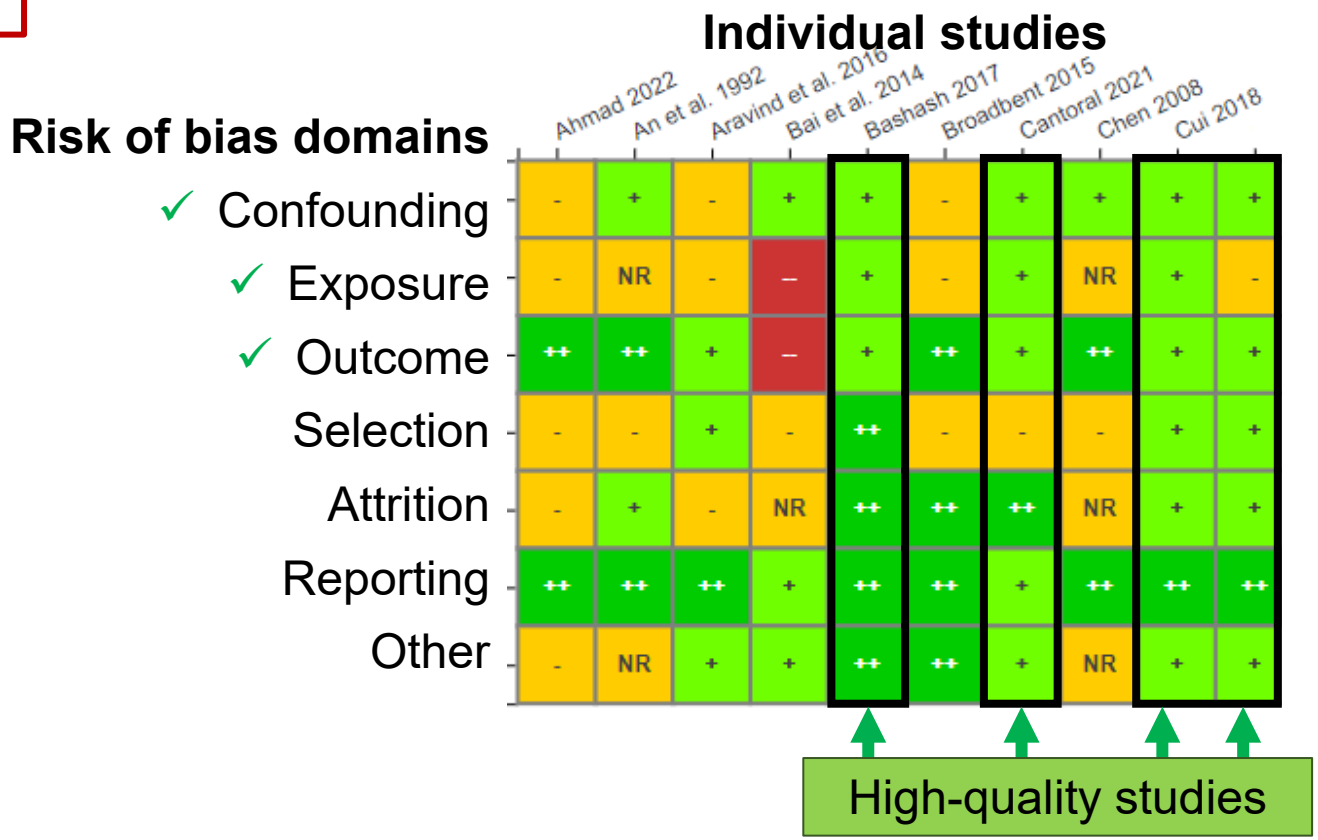
High quality studies represent **the best evidence**, and are basis for the Monograph’s conclusions

- A high-quality study’s **risk of bias ratings** are:

+ ++	For most domains
-	No more than one in a key domain
- -	None in any domain

Risk of Bias Ratings	
- -	Definitely high
-/NR	Probably high or NR
+	Probably low
++	Definitely low

NR: Not reported

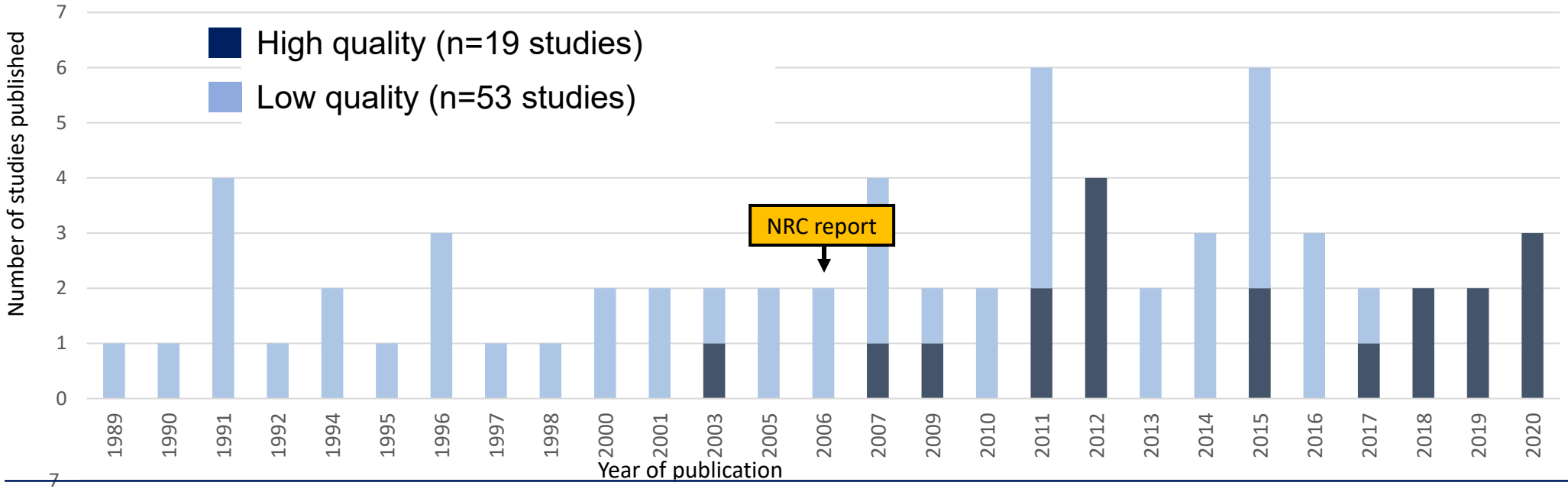


Characteristics of high-quality studies

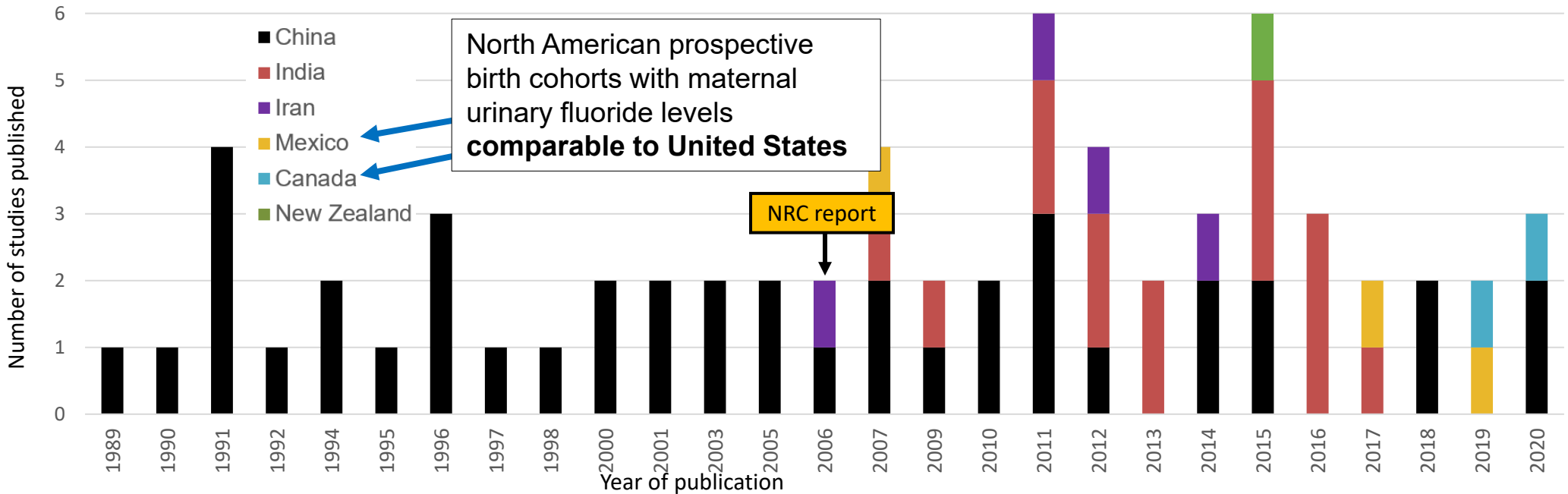
Important for determining confidence

- Most established exposure occurred prior to outcome assessment (i.e., temporality)
  - e.g., prospective cohort studies or prevalence of dental fluorosis in children, limiting study populations to children who lived in an area for long periods of time
- Used IQ tests that were appropriate for the population being studied, outcome assessors were blind to fluoride exposure status
- Accounted for **key confounders** (e.g., age, sex, socioeconomic status) including potential co-exposures to other neurotoxins (e.g., arsenic, lead intake)
- Used individual-level exposure assessment measures (e.g., urine or water)
  - Or, if using group-level data, confirmed regions being compared had differences in fluoride exposure
- Used appropriate sampling techniques for study populations and statistical approaches for analyses
  - e.g., stratified multistage random sampling, regression techniques that account for clustering

Study quality and year of publication in studies of fluoride exposure and children's IQ

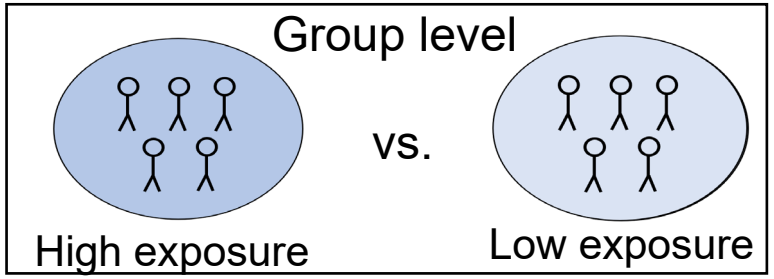


Study location and year of publication in studies of fluoride exposure and children's IQ

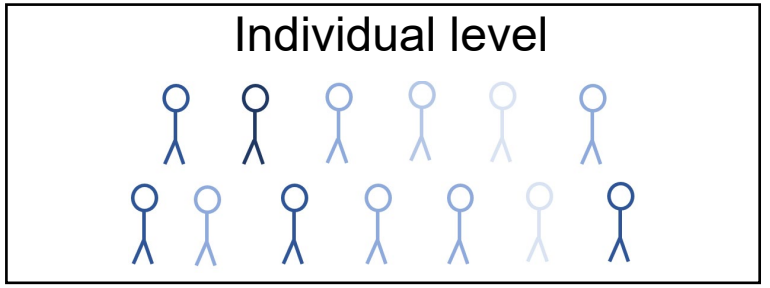


NRC: National Research Council

Exposure data fell into two general categories



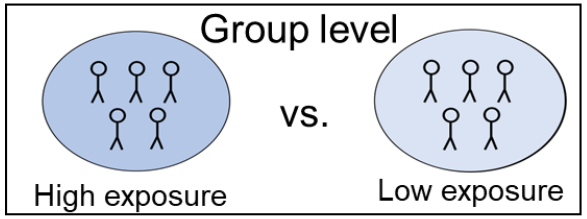
- Reported group-level exposure measures
- Compared mean IQ of children living in “high” fluoride areas to children living in “low” fluoride areas
- Measures included
  - Village or area of residence (endemic vs. non-endemic)
  - Drinking water
  - Children’s urine
  - Severity of dental fluorosis
  - Coal burning



- Reported individual-level exposure measures
- Reported regression coefficients for change in children’s IQ per 1 mg/L increase in urinary fluoride levels
- Measures included
  - Children’s urine
  - Maternal urine
  - Drinking water
  - Fluoride intake
  - Serum

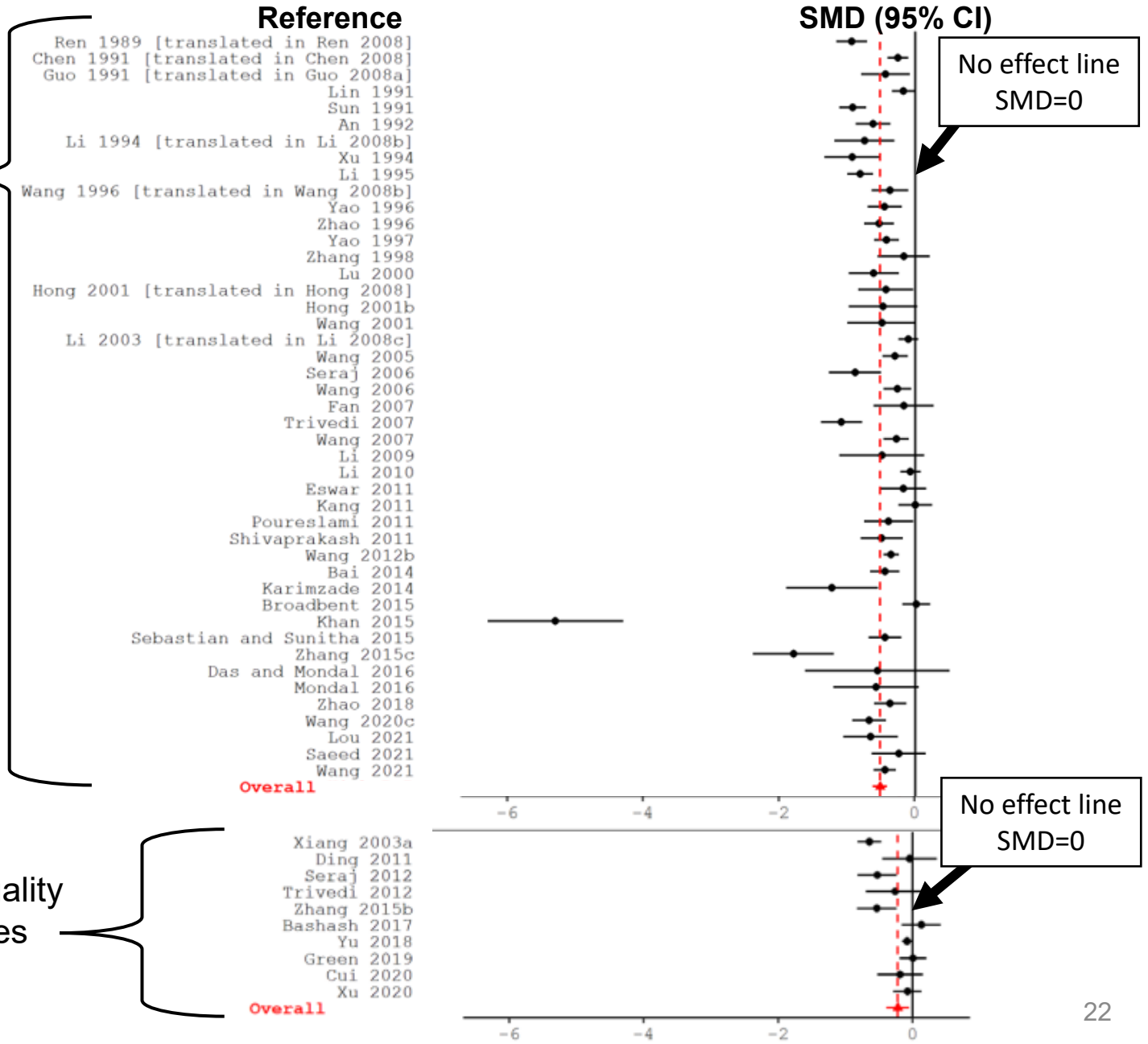
Consistency across high- and low-quality studies

Group-level data



- Standardized mean difference (SMD) for studies comparing children's IQ in a "high" fluoride exposure area vs. a "low" fluoride exposure area

Children in high fluoride communities have statistically significantly **lower IQ**

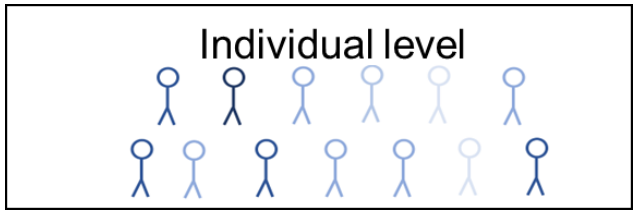


CI: Confidence intervals

Not all high-quality studies reporting group level data are displayed (e.g., studies that did not report data in a way that could be plotted as an SMD)

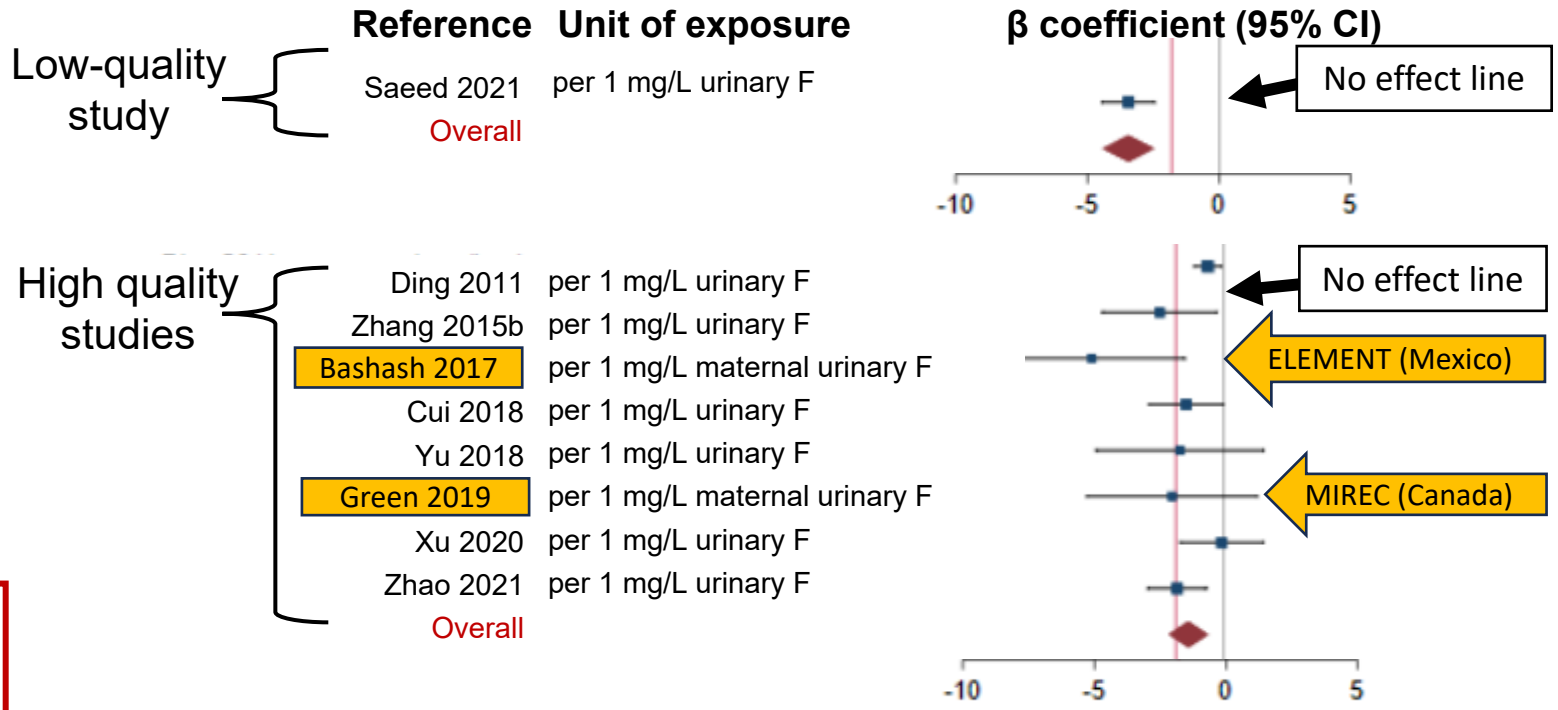
Consistency across high- and low-quality studies

Individual-level data



- Regression coefficients (β) and 95% CIs for change in children's IQ per 1 mg/L increase in maternal or children's urinary fluoride

For every 1 mg/L increase in urinary fluoride there is a statistically significant **decrease children's IQ**



ELEMENT and MIREC cohorts reported maternal urinary fluoride levels **comparable to the United States** (*Ugyturk 2020, Malin 2024*)

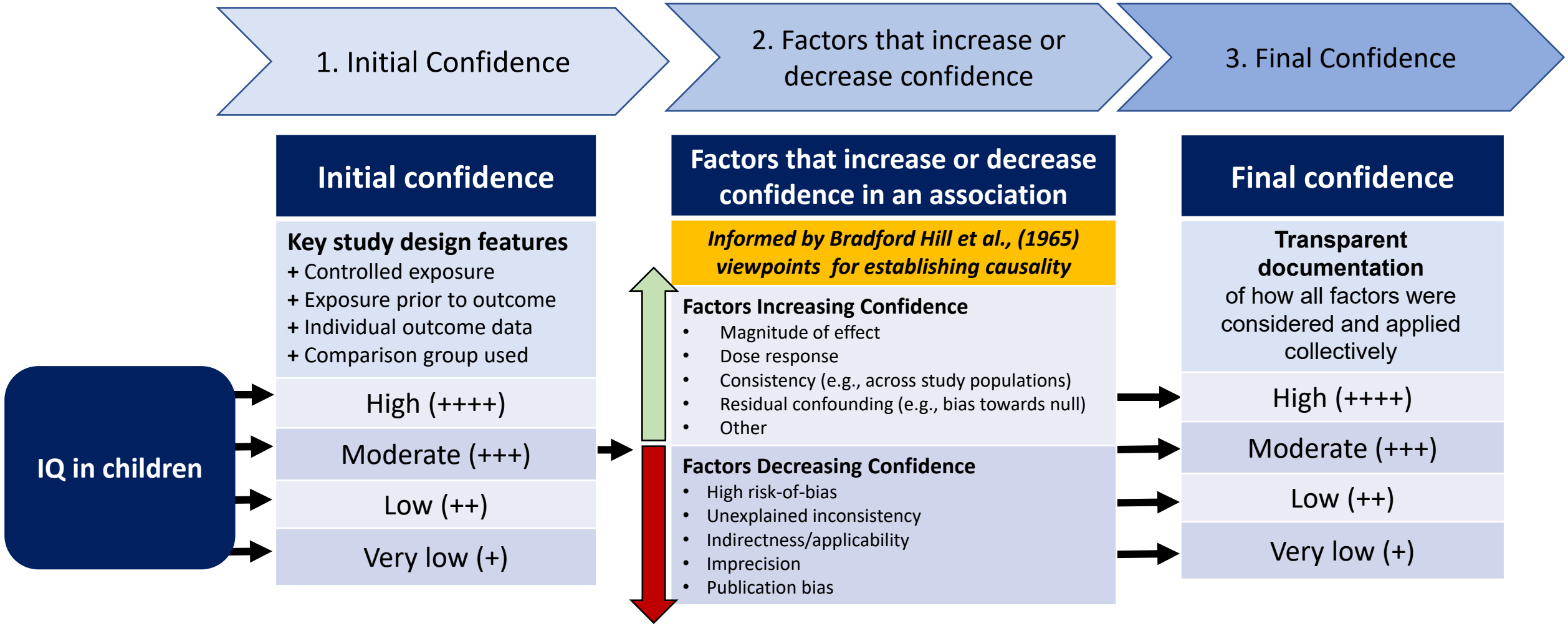
- Green et al 2019 (MIREC): β = **-1.95** (95% CI: -5.19, 1.28)
- Bashash 2017 (ELEMENT): β = **-5.16** (95% CI: −9.12, −1.19)

Interpretation: Per 1 mg/L increase in maternal urinary fluoride, → 2 to 5 point decrease in children's IQ

Confidence ratings

- Rate confidence in bodies of evidence that overall findings ***reflect the true exposure-effect relationship***
- Four-point scale:
  - High confidence
  - Moderate confidence
  - Low confidence
  - Very Low confidence
- Performed for bodies of evidence on outcome basis
- Considers principles that are ***consistent with causation***

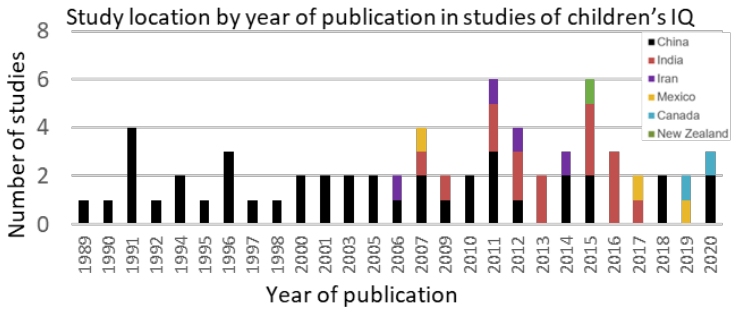
3 steps for determining confidence

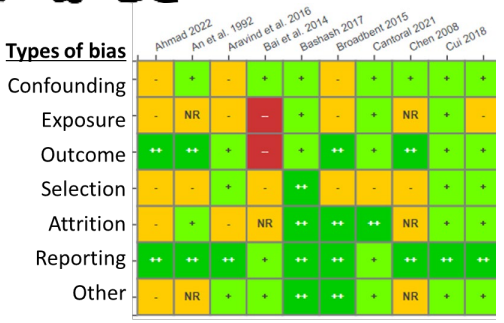


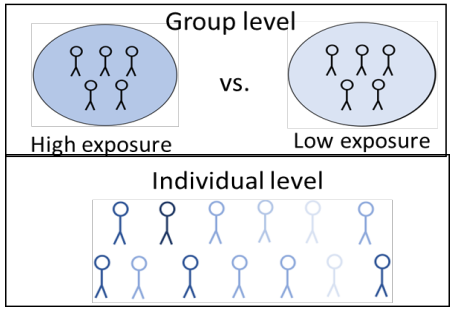
Considerations for confidence ratings

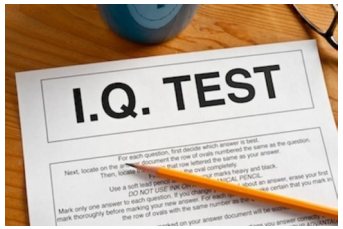
Studies of fluoride exposure and children's IQ

- Consistent inverse association across:
  - 18 of 19 high quality studies
  - 46 of the 53 low quality studies
  - Study populations from different countries
  - Study designs (cross-sectional, prospective cohort)
  - Risk of bias ratings
  - Exposure matrices (water and urine)
  - Type of exposure data (group and individual level data)
  - Timing of exposure (pre- and post-natal)
  - Outcome assessment type (different types of IQ tests)
- Heterogeneity in methods, NOT heterogeneity in results
- Each level of consistency **strengthens** overall confidence
- Determined confounding could not explain these results *(see NTP Monograph for details)*









NTP Conclusion:

Moderate confidence that

higher fluoride exposure is associated with lower IQ children

Extensive peer review

2019–2020

National Academies of Science, Engineering, Medicine (NASEM) committee reviewed initial (2019) & revised (2020) drafts

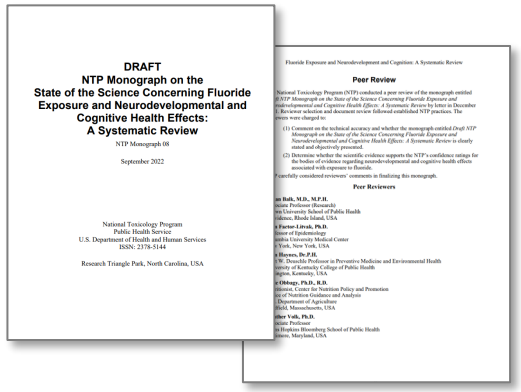
NTP revised Monograph in response to these reviews

2021

External peer review by 5 independent reviewers of 2021 draft NTP Monograph (typical NTP peer review process)

Both **NASEM reviews** & author responses provided

Reviewers ***unanimously*** agree with NTP's conclusions



2022

DTT Scientific Director approves NTP Monograph to be published (May 2022)

NTP/NIEHS Director asks NTP Board of Scientific Counselors (BSC) to review authors' responses to external peer review & *interagency comments on Monograph & meta-analysis (MA)

2023

NTP BSC working group review of author responses to external peer review & *interagency comments on Monograph & MA

Both **NASEM reviews** & author responses provided

Issued recommendations for language refinement & clarification

No major issues identified with methods, analyses, conclusions

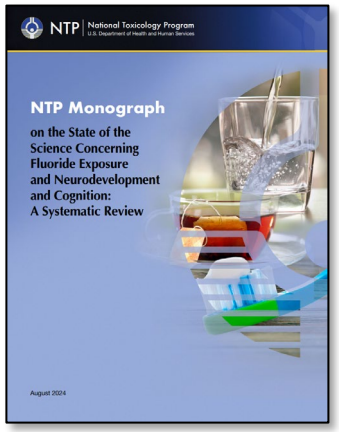
Encouraged rapid publication

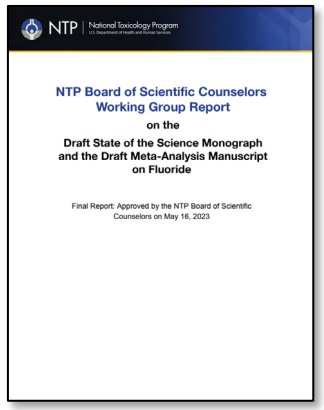
Authors respond to all NTP BSC comments

2024

Final publication
August 2024

(MA in press)





*Agencies and offices that provided comments on Monograph & MA

Office of the Director, NIH
Office of the Assistant Secretary of Health (OASH)
Food and Drug Administration (FDA)
Centers for Disease Control (CDC)
National Institute of Dental and Craniofacial Research (NIDCR)
National Institute of Child Health and Development (NICHD)

Of note…

- Final confidence conclusions based primarily on high-quality studies (i.e., the best evidence)
  - Consideration of low-quality studies does not decrease confidence in overall body of evidence
- Conclusions based primarily on non-US studies where total fluoride exposure approximated *>1.5 mg/L fluoride in drinking water
  - Several high-quality prospective birth cohort studies with maternal urinary fluoride levels comparable to the United States

  **>1.5 mg/L refers to WHO Drinking Water Guideline of 1.5 mg/L; chosen to describe "higher" fluoride exposure in the NTP Monograph based on an overall assessment of the epidemiology literature; represents a useful total fluoride exposure equivalent metric (no alternative safety guidelines for total fluoride exist)*
- Review ***does not***
  - Evaluate benefits of fluoride or provide a risk/benefit analysis
  - Address whether ***sole exposure*** to fluoride at 0.7 mg/L in drinking water is associated with neurodevelopment and cognitive effects
- Targeted research that prospectively examines the association between fluoride exposure and children's IQ in optimally fluoridated areas of the United States would add clarity to the existing data at lower levels

Exposure considerations

- Fluoride in drinking water
  - Provides useful estimates of long-term population exposures
  - May underestimate total exposure because it does not capture the amount of water ingested or other sources of ingested fluoride
- Fluoride in urine
  - Biological measure that captures individual's total fluoride exposure
  - Represents a limited (recent) time-period
  - Multiple measurements would be more robust, e.g., cohort studies with maternal urinary fluoride had multiple measures throughout pregnancy
- Small number of studies at low exposure levels
  - Limited exposure contrasts, which makes it more difficult to detect a true effect, if it exists

Relevance to the United States

- NTP conclusions are relevant to some pregnant women, infants, and children living in the United States
  - People may have total fluoride exposures higher than levels in drinking water
  - **Over 2.9 million people** in the United States served by CWS receive drinking water with >1.5 mg fluoride/L

NEWS & FEATURES

In Millions of Homes, High Fluoride in Tap Water May Be a Concern

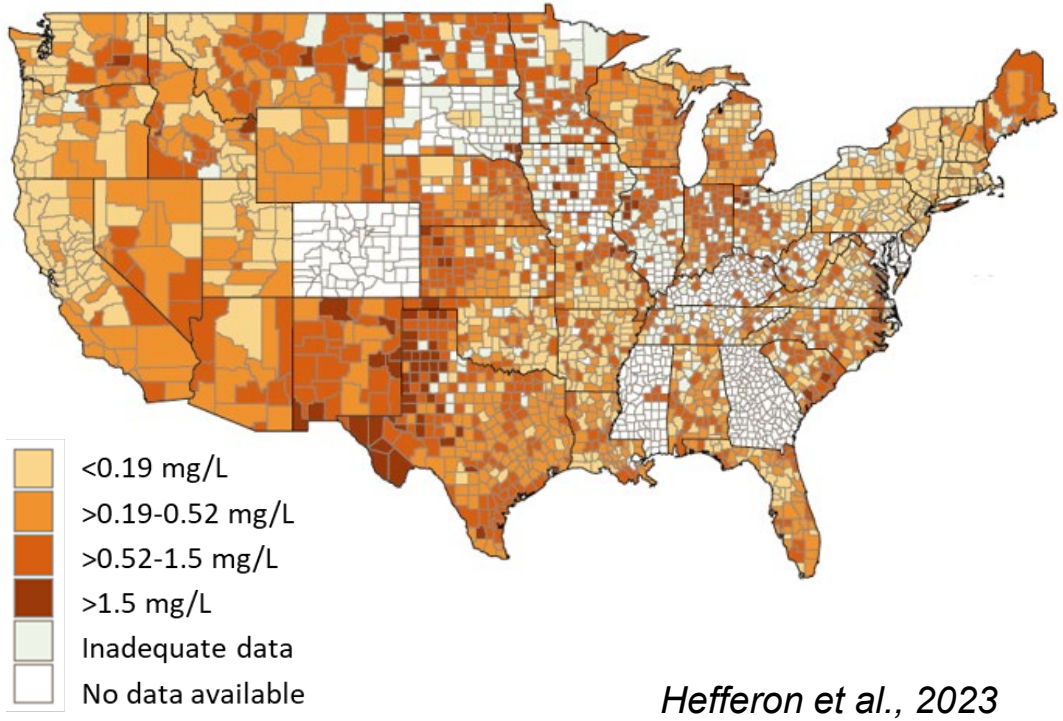
In communities across the U.S., water contains levels of fluoride some experts say could be harm developing brains.

BY MICHAEL SCHULSON
05.06.2024

Top: Water tower in Comfort, Texas. Visual: Marcus Wennrich/ iStock/Getty Images Plus

> *Lost in that debate are the roughly 3 million Americans whose water naturally contains higher concentrations of fluoride — often at levels that could have neurodevelopmental effects.*

Estimated fluoride levels in community water systems by county



Hefferon et al., 2023

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NEWS & FEATURES

In Millions of Homes, Hig
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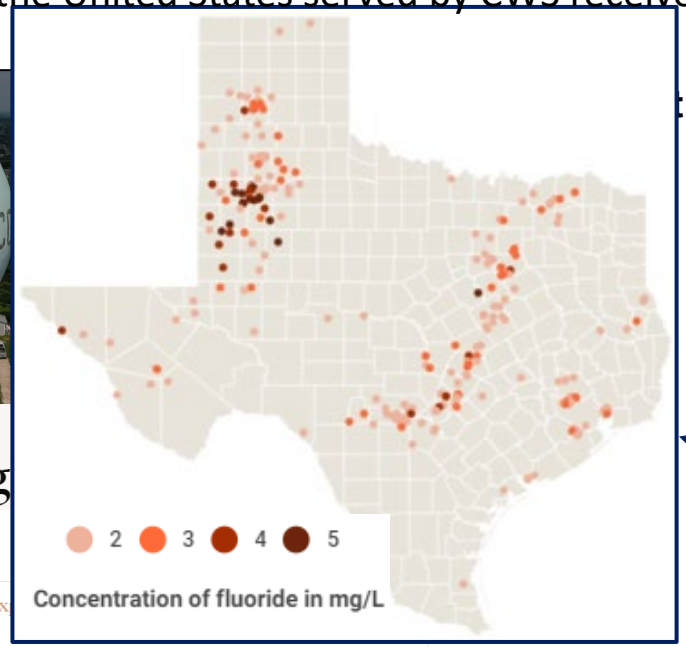
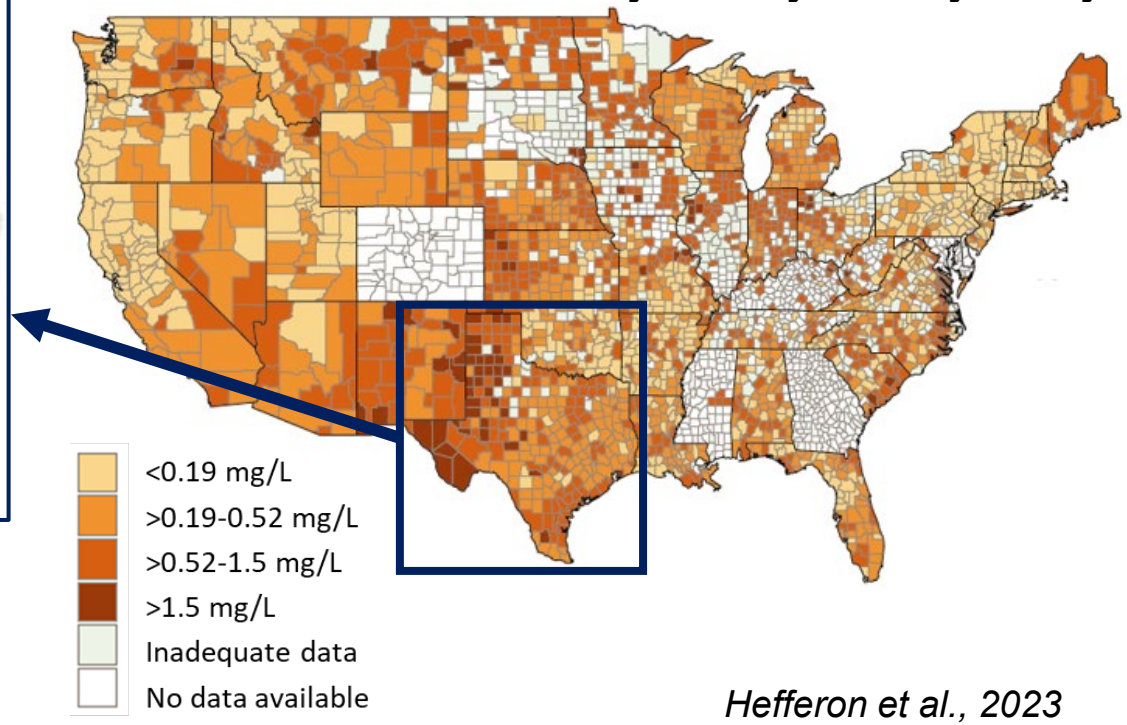
Top: Water tower in Comfort, Texas. Visual: Marcus Wennrich/ iStock/Getty Images Plus





Hefferon et al., 2023

> *Lost in that debate are the roughly 3 million Americans whose water naturally contains higher concentrations of fluoride — often at levels that could have neurodevelopmental effects.*

Fetal and developing brains are especially vulnerable

- Benefits of fluoride are from topical contact with teeth
- No benefit from gestational exposure
- Fetal exposure:
  - Fluoride from maternal blood crosses placenta
  - Fluoride stored in bone and remobilized into bloodstream during pregnancy

The New York Times

Is Fluoridated Drinking Water Safe for Pregnant Women?

New research suggests a link between prenatal fluoride levels and behavioral issues in children. Experts are divided on the study's

By Alice Callahan and Christina Caron

May 22, 2024

- Formula-fed infants residing in fluoridated communities at higher risk of fluoride toxicity
  - 3-4 times greater exposure to fluoride than adults on a per body-weight basis
  - ~70-fold higher fluoride intake than exclusively breastfed infants
  - Retain more fluoride than breastfed infants

NTP Monograph played central role in recent federal trial

- What was the lawsuit about?
  - Plaintiffs petitioned EPA to evaluate fluoride in drinking water, EPA denied the petition and under Amended Toxic Substances Control Act (TSCA), Plaintiffs were entitled to a judicial review
- Monograph relied on by both Plaintiffs and EPA as a "high-quality review"
- What was the Court's ruling?
  - On September 24, 2024, a federal district judge found that the 0.7 mg/L fluoride in drinking water, level considered "optimal" in the United States, poses an ***"unreasonable risk"*** of IQ loss in children which, under the toxics law, requires ***"a regulatory response"***
  - Finding did not conclude with certainty that fluoridated water is injurious to public health
  - Court finds the risk is ***sufficient*** to require the EPA to engage with a regulatory response, but does not dictate what that response must be, decision left to the EPA,
  - TSCA allows wide spectrum of potential risk-management measures from warning labels or public advisories to prohibiting the manufacturing and distribution of a chemical


GREENWIRE

EPA 'in a really tough spot' after landmark fluoride ruling

By Ellie Borst, Miranda Willson | 10/18/2024 01:30 PM EDT

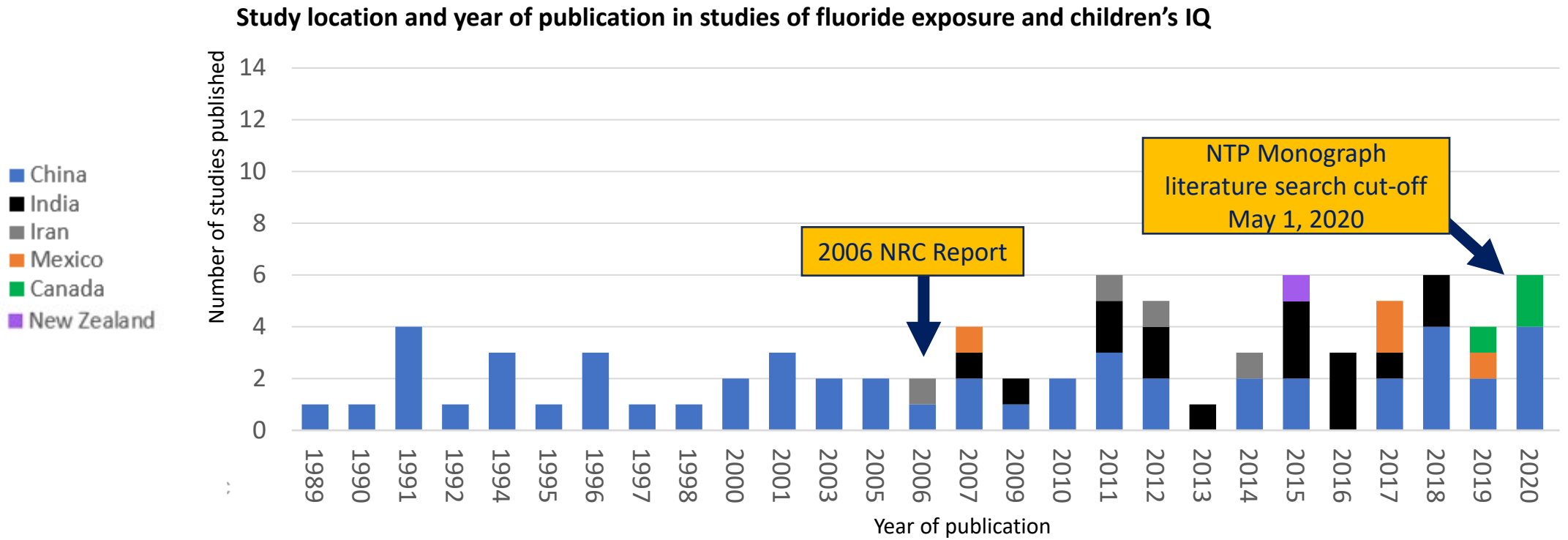
Experts say the precedent-setting court decision backing a Toxic Substances Control Act citizen petition could spur other bids to force new chemical rules.


A district court judge ruled that fluoride in drinking water "poses an unreasonable risk of reduced IQ in children." EPA's regulatory response to the ruling remains unclear. Claudine Hellmuth/E&E News(illustration);EPA(text);Jenn Durfey/Flickr(faucet);Freepik(hands with glass);umanoide/Unsplash(teeth)

Public health community can use the NTP systematic review as part of ongoing evaluations of the role of fluoride in drinking water

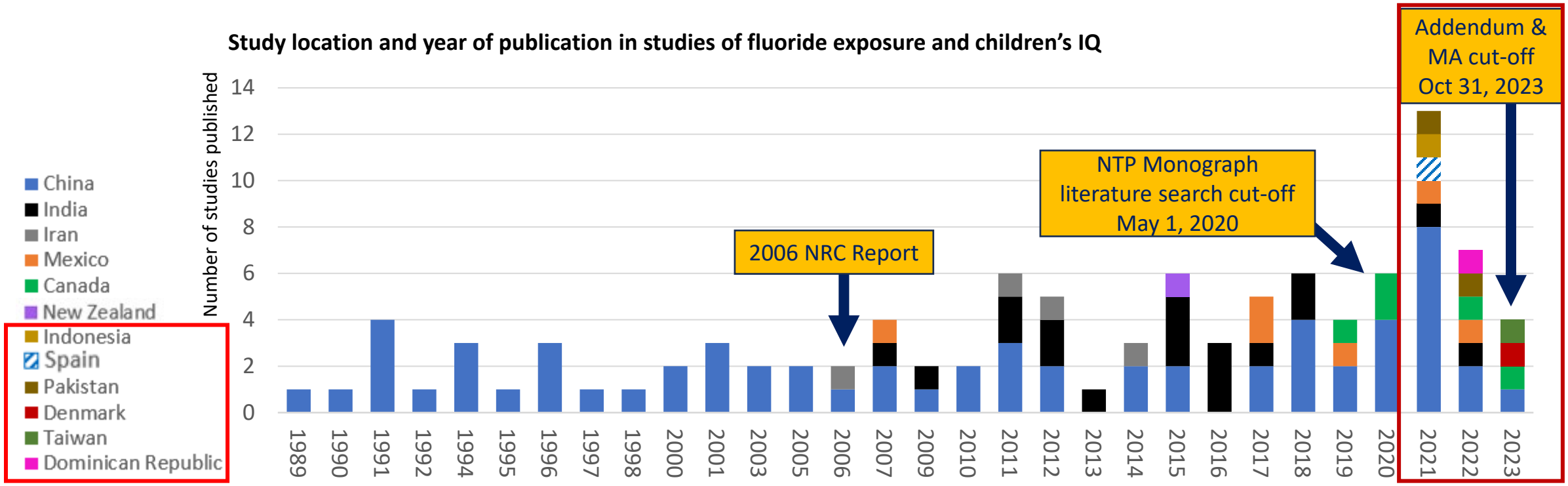
Literature since May 1, 2020?

- Addendum updated through October 2023 to match timeframe of meta-analysis (in press)



Literature since May 1, 2020?

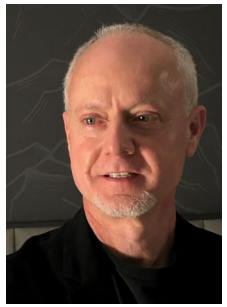
- Addendum updated through October 2023 to match timeframe of meta-analysis (in press)
- 28 new studies
  - 12 of 12 high quality studies reported inverse associations (6 in new study populations)
  - 13 of 16 low quality reported inverse associations



National Institute of Environmental Health Sciences
Division of Translational Toxicology

Acknowledgements

DTT co-authors



Andrew Rooney, PhD
Acting Branch Chief
IHAB, DTT, NIEHS

John Bucher, PhD *(retired)*
Former Scientific Director of DNTP
and Associate Director of NTP

ICF co-authors and COR

Sorina Eftim, PhD
Christopher Sibrizzi, MPH
Robyn Blain, PhD
Kristen Magnuson, MESM
Pamela Hartman, MEM
Kelly Shipkowski, PhD

Integrative Health Assessments Branch

Brandy Beverly, PhD
Kembra Howdeshell, PhD
Ruth Lunn, DrPH
Suril Mehta, DrPH
Anisha Singh, PhD
Vickie Walker
Amy Wang, PhD

Internal reviewers (NIEHS)

Mamta Bell, PhD *(currently Neurocrine Biosciences, Inc.)*
Jesse Cushman, PhD
Kelly Ferguson, PhD
Kimberly Gray, PhD
Freya Kamel, PhD *(retired)*
Ruth Lunn, DrPH
Suril Mehta, DrPH

Thank you! Questions?

email: kyla.taylor@nih.gov

Fluoride Exposure and Neurodevelopment and Cognition A Systematic Review

Collaborative for Health and the Environment

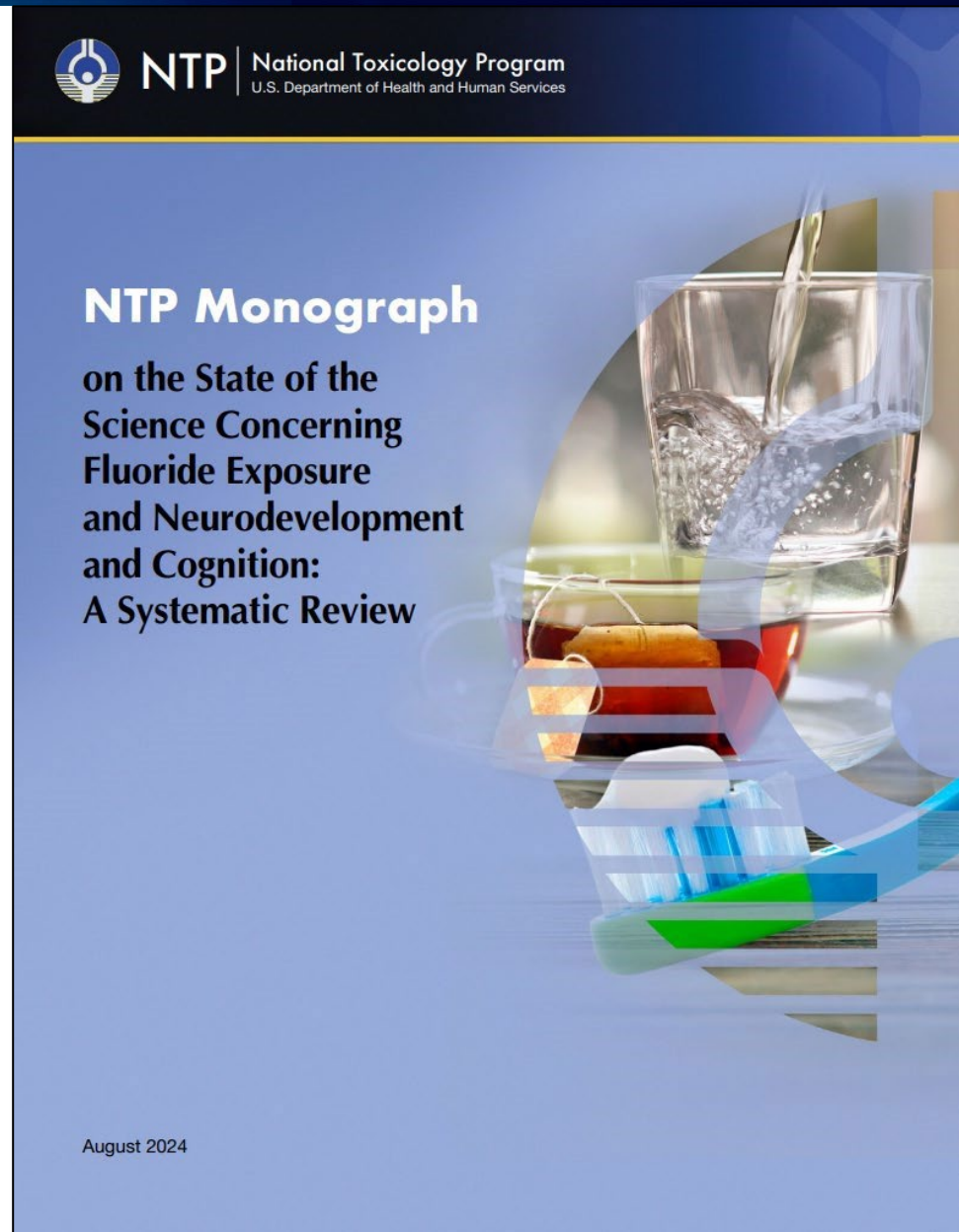
December 3, 2024

Kyla W. Taylor, PhD, John Bucher, PhD, Andrew A. Rooney, PhD

Integrative Health Assessments Branch
Division of Translational Toxicology
National Institute of Environmental Health Sciences

Talk outline

- What is fluoride? The history of U.S. water fluoridation
- NTP Monograph: Fluoride, neurodevelopment, and cognition
- Public health relevance
- Recent federal court ruling and role of the Monograph
- Questions and panel discussion



What is fluoride?

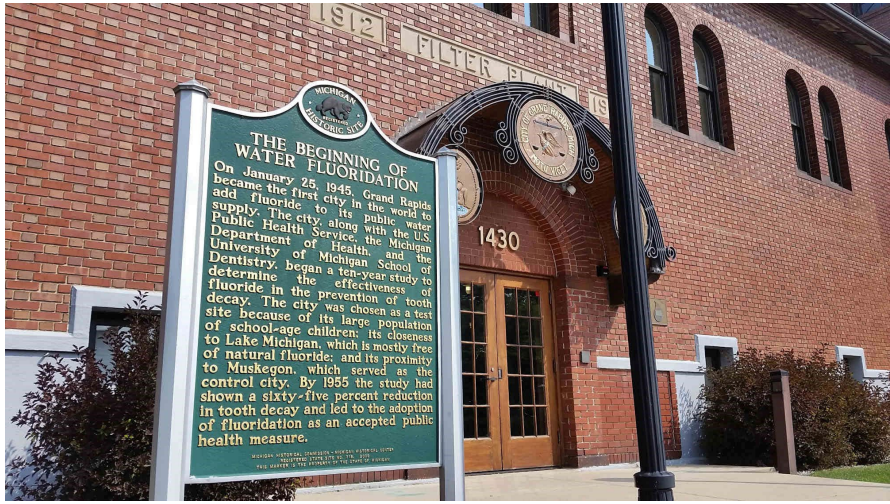
- Naturally occurring mineral
- Topical contact reduces risk of cavities
- Added to drinking water
- Many other sources of exposure

Topical sources

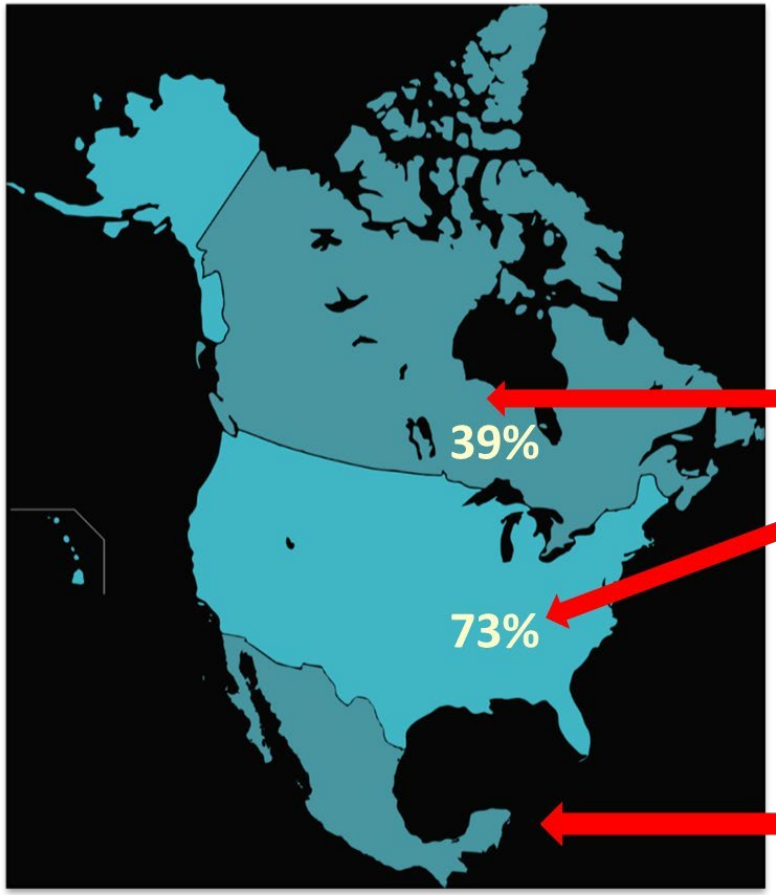
Systemic sources

History of U.S. water fluoridation

- Early 20th century researchers noticed that people living in areas with high levels of fluoride in drinking water had fewer cavities
- First added to drinking water in Grand Rapids, Michigan in 1945
- The U.S. Public Health Service (PHS) first recommended communities add fluoride to drinking water in 1962
- U.S. PHS recommends 0.7 mg/L fluoride added to drinking water
- Community water systems serve about 200 million US residents



Sources of *added* fluoride in North America



Drinking water
Recommended: 0.7 mg fluoride/L

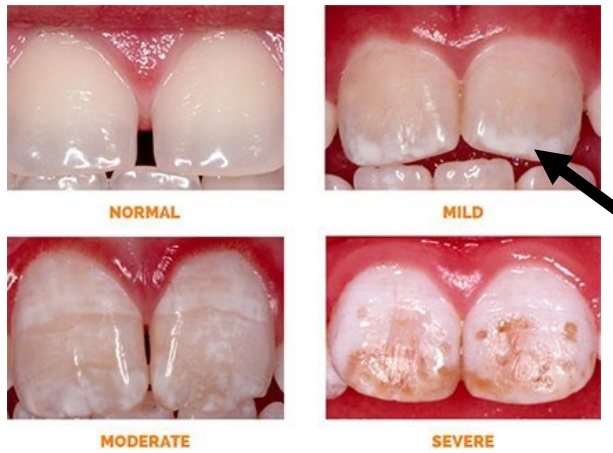
Salt supply is fluoridated

Public Health Agency of Canada, 2017

Public Health Agency of Canada, 2017

Adverse health effects and current drinking water standards and recommendations

- Skeletal fluorosis
  - Bone disease caused by fluoride accumulation in the bones
  - Causes pain and tenderness of the major joints
- Dental fluorosis
  - Mild: Discoloration
  - Moderate to severe: Pitting

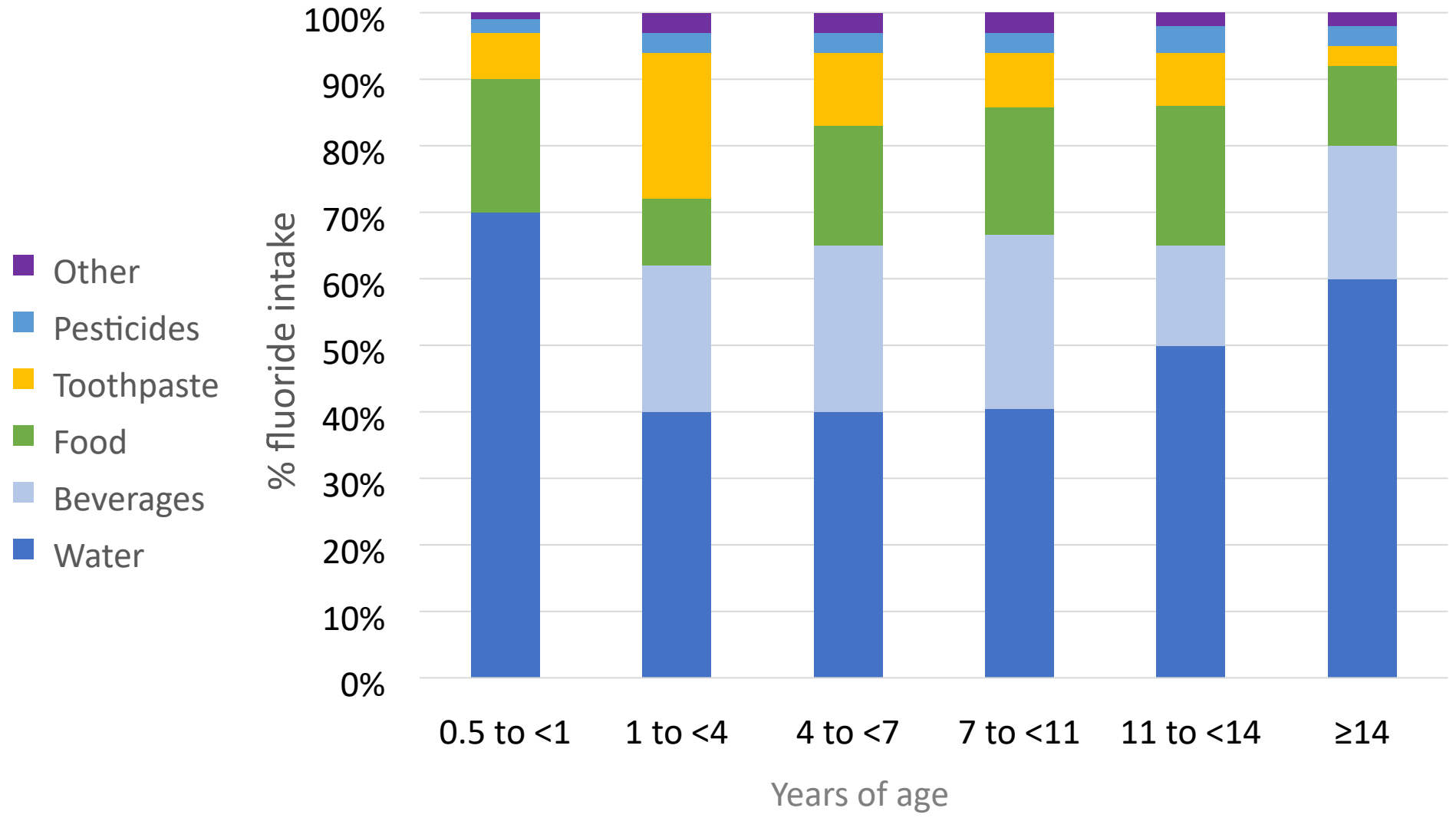


Dental fluorosis is the white discoloration

	Agency	Fluoride drinking water level	US residents served by CWSs above level
Standards (enforceable)	US EPA	4.0 mg/L	> 40,000
Recommendations (non-enforceable)	US EPA	2.0 mg/L	> 1.9 Million
	WHO	1.5 mg/L	> 2.9 Million
	US PHS	0.7 mg/L	>20.5 Million

CWS: Community water system
EPA: Environmental Protection Agency
WHO: World Health Organization
PHS: Public Health Service

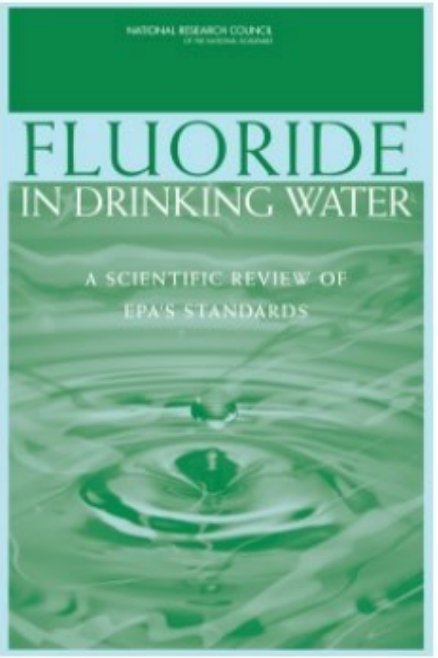
% total fluoride intake in children from various sources, by age



US EPA Fluoride: Exposure and Relative Source Contribution Analysis (2010)

Neurotoxic effects?

- **2006:** National Research Council (NRC) reported evidence of neurotoxic effects of fluoride
- Fetal and developing brains are especially vulnerable to neurotoxicants
- Concern that some pregnant women and children may be getting more fluoride than they need because they now get fluoride from many sources and the combined total intake of fluoride may exceed safe amounts
- Fetal exposure
  - Fluoride from maternal blood crosses placenta
  - Fluoride stored in bone and remobilized into bloodstream during pregnancy
- Formula-fed infants residing in fluoridated communities:
  - 3-4 times greater exposure to fluoride than adults on a per body-weight basis
  - ~70-fold higher fluoride intake than exclusively breastfed infants

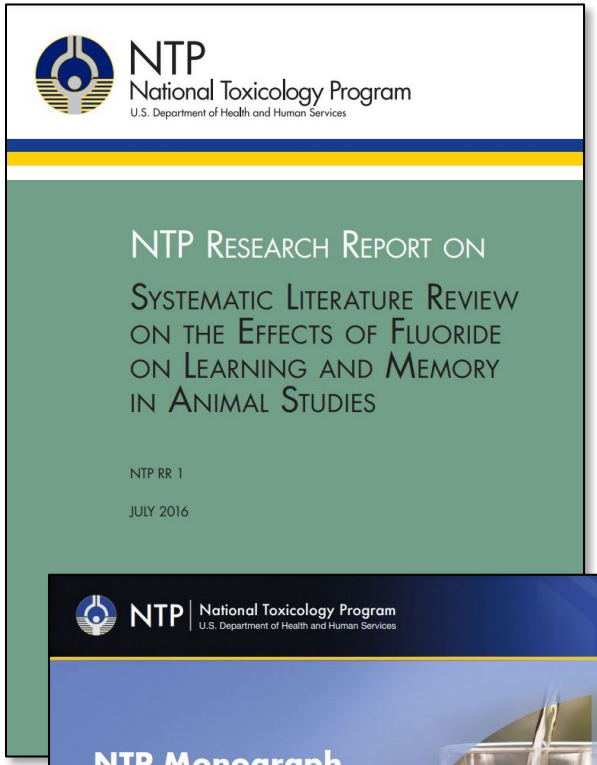


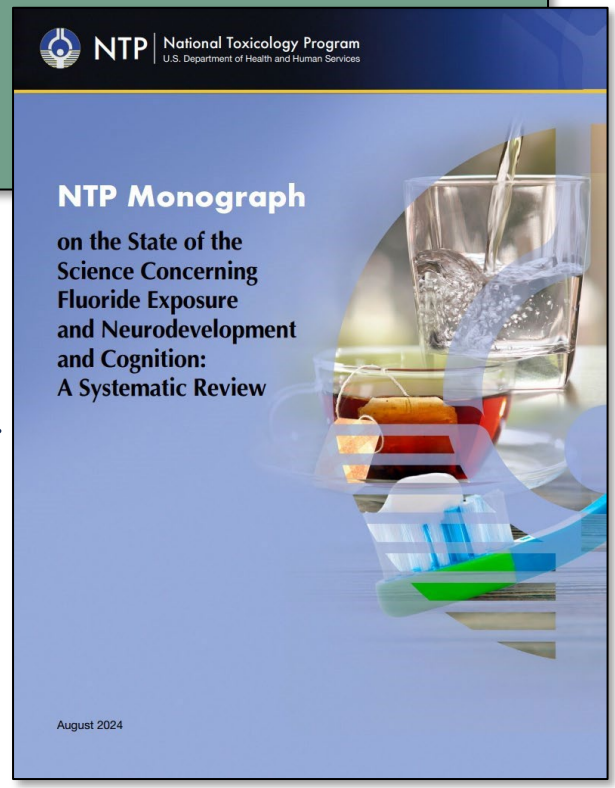
Fluoride as a topic for evaluation at the National Toxicology Program (NTP)

- **2015:** Topic of fluoride exposure & adverse health effects nominated to NTP
- **2016:** NTP Monograph (animal studies only) published
  - Systematic review of animal studies found *low to moderate* evidence of adverse effects on learning and memory

2nd NTP systematic review to evaluate potential neurodevelopmental and cognitive effects of fluoride in the human, animal, and mechanistic/*in vitro* literature

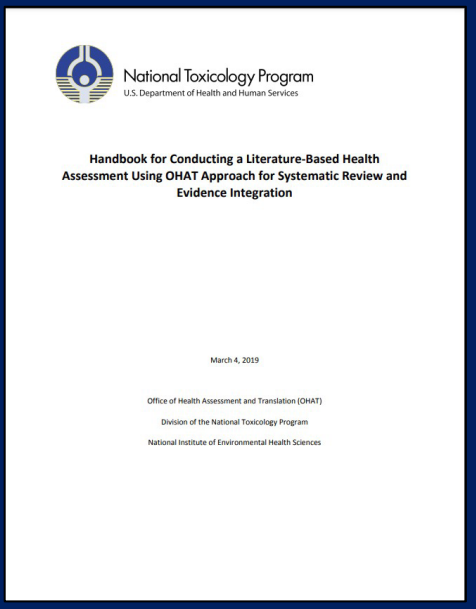
Published August 2024





What is systematic review?

- Transparent and rigorous method for identifying, evaluating, and summarizing every single relevant study published on a topic
- Look for patterns across a body of evidence, and develop conclusions based on the best available evidence
- **OHAT approach to systematic review**, developed in 2014, is a framework for systematic review and evidence integration across human, animal, mechanistic studies
  - Developed to address challenges with reproducibility, transparency
  - Leading edge of bringing systematic review methodology to toxicology and environmental health
- Given **importance and scrutiny** of public health decisions, adherence to standardized methods is essential


National Toxicology Program
U.S. Department of Health and Human Services

Handbook for Conducting a Literature-Based Health Assessment Using OHAT Approach for Systematic Review and Evidence Integration

March 4, 2019

Office of Health Assessment and Translation (OHAT)

Division of the National Toxicology Program

National Institute of Environmental Health Sciences


Research

Systematic Review and Evidence Integration for Literature-Based Environmental Health Science Assessments

Andrew A. Rooney, Abee L. Boyles, Mary S. Wolfe, John R. Bucher, and Kristina A. Thayer

Office of Health Assessment and Translation, Division of the National Toxicology Program, National Institute of Environmental Health Sciences, National Institutes of Health, Department of Health and Human Services, Research Triangle Park, North Carolina, USA

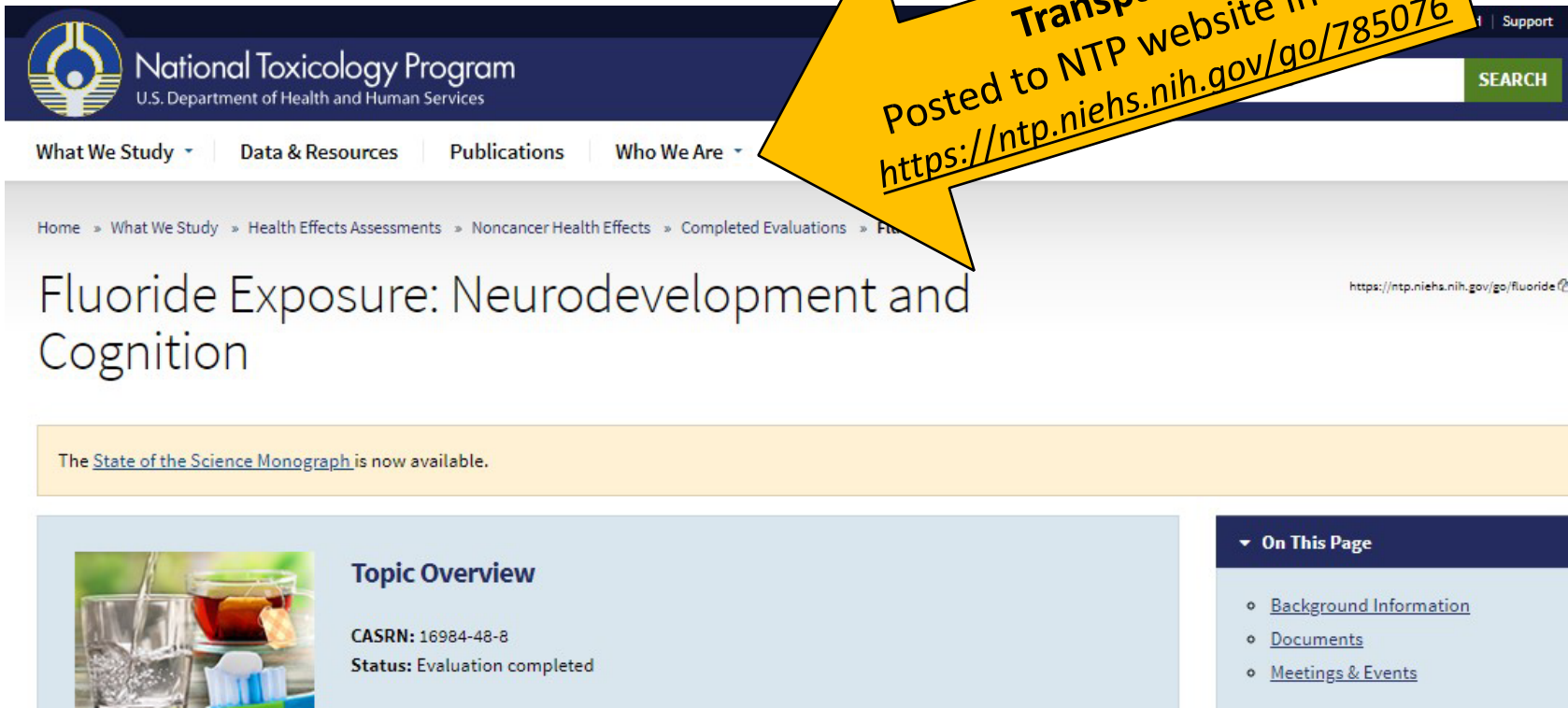
OHAT Handbook: https://ntp.niehs.nih.gov/sites/default/files/ntp/ohat/pubs/handbookmarch2019_508.pdf

Systematic Review
- Planning and protocol development
- Identify evidence
  - Comprehensive literature search
  - Literature screening
- Evaluate evidence
  - Extract data
  - Risk of bias assessment

- **Planning and protocol development** → • Refined research question, developed detailed protocol with input from technical experts
- Identify evidence
  - Comprehensive literature search
  - Literature screening
- Evaluate evidence
  - Extract data
  - Risk of bias assessment

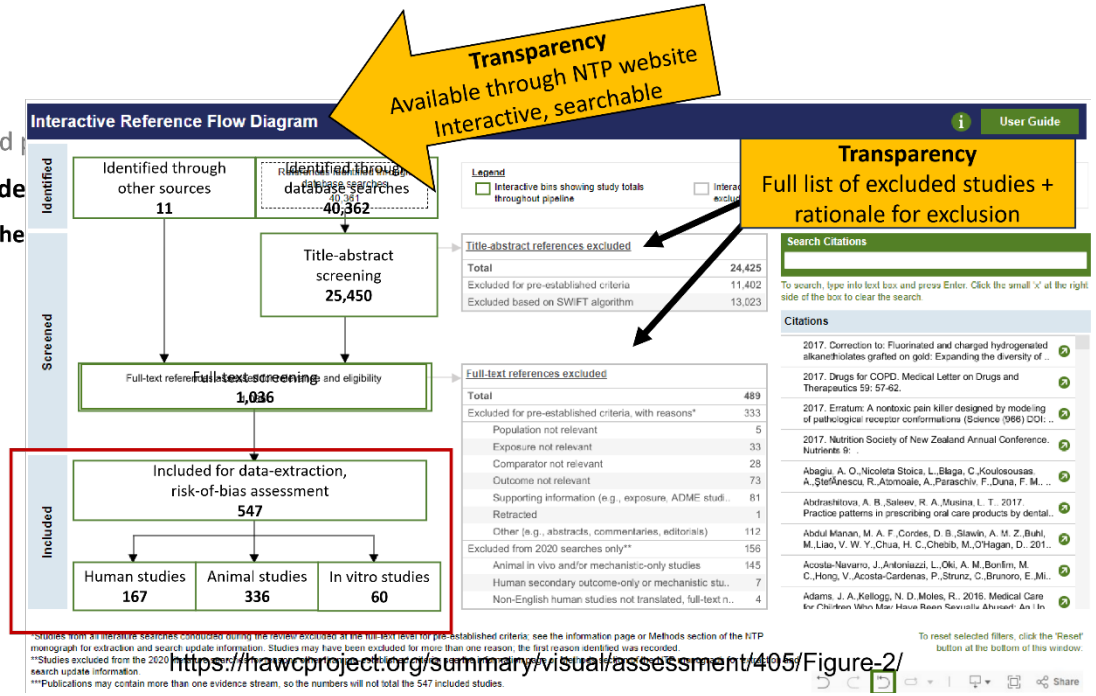
• Formal peer review of protocol

Transparency
Posted to NTP website in 2017
https://ntp.niehs.nih.gov/go/785076



- Planning and protocol development
- **Identify evidence** → • Comprehensive literature search of eight databases through May 1, 2020 (***Addendum update through October 2023***)
  - **Comprehensive literature search**
  - **Literature screening**
    - BIOSIS, EMBASE, PsychINFO, PubMed, Scopus, Web of Science, CNKI, and Wanfang
    - Peer reviewed articles, no language restrictions
    - • References screened for relevance (2 independent reviewers)
- Evaluate evidence
  - Extract data
  - Risk of bias assessment

- Planning and
- **Identify evide**
  - **Comprehe**



https://hawcproject.org/summary/visual/assessment/405/Figure-2/

  - **– Literature screening** ○

Evaluate evidence

– Selection based on predefined Population, Exposure, Comparator, and Outcome (PECO) criteria to avoid bias

- Extract data
- Risk of bias assessment

Systematic review focuses on the human studies

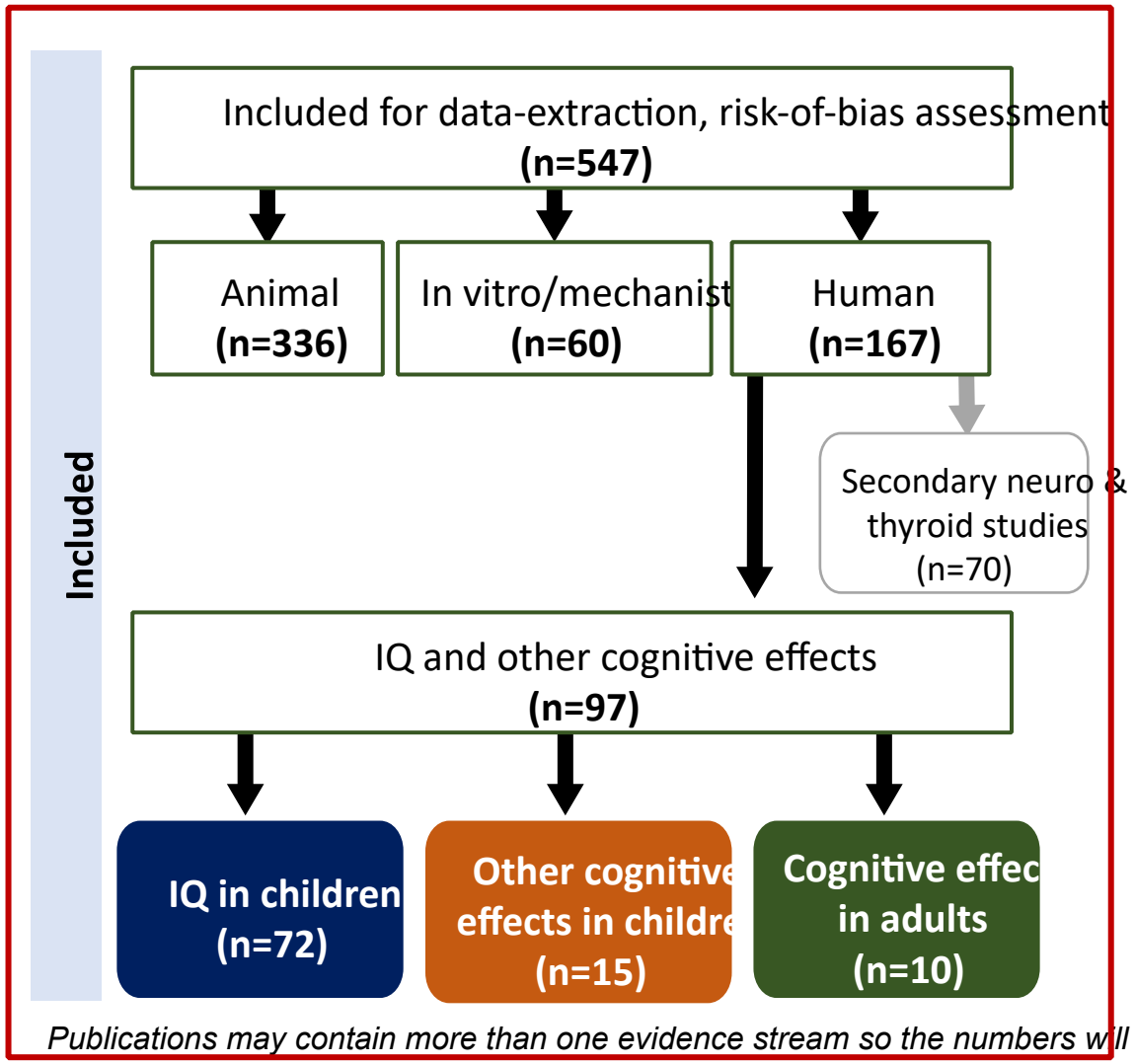
- 547 human, animal, mechanistic/ in vitro studies considered relevant

Details for each evidence stream

available in NTP Monograph

- Experimental animal learning and memory data ***inadequate*** to inform assessment of neurodevelopment and cognitive effects in humans

- In vitro/mechanistic studies too heterogeneous and limited to make determination on biological plausibility (e.g., changes in thyroid hormone)



Publications may contain more than one evidence stream so the numbers will not total the 547

OHAT approach to systematic review

- **Systematic Review**
  - Planning and protocol development
  - Identify evidence
    - Comprehensive literature search
    - Literature screening
  - **Evaluate evidence**
    - **Extract data**
    - Risk of bias assessment

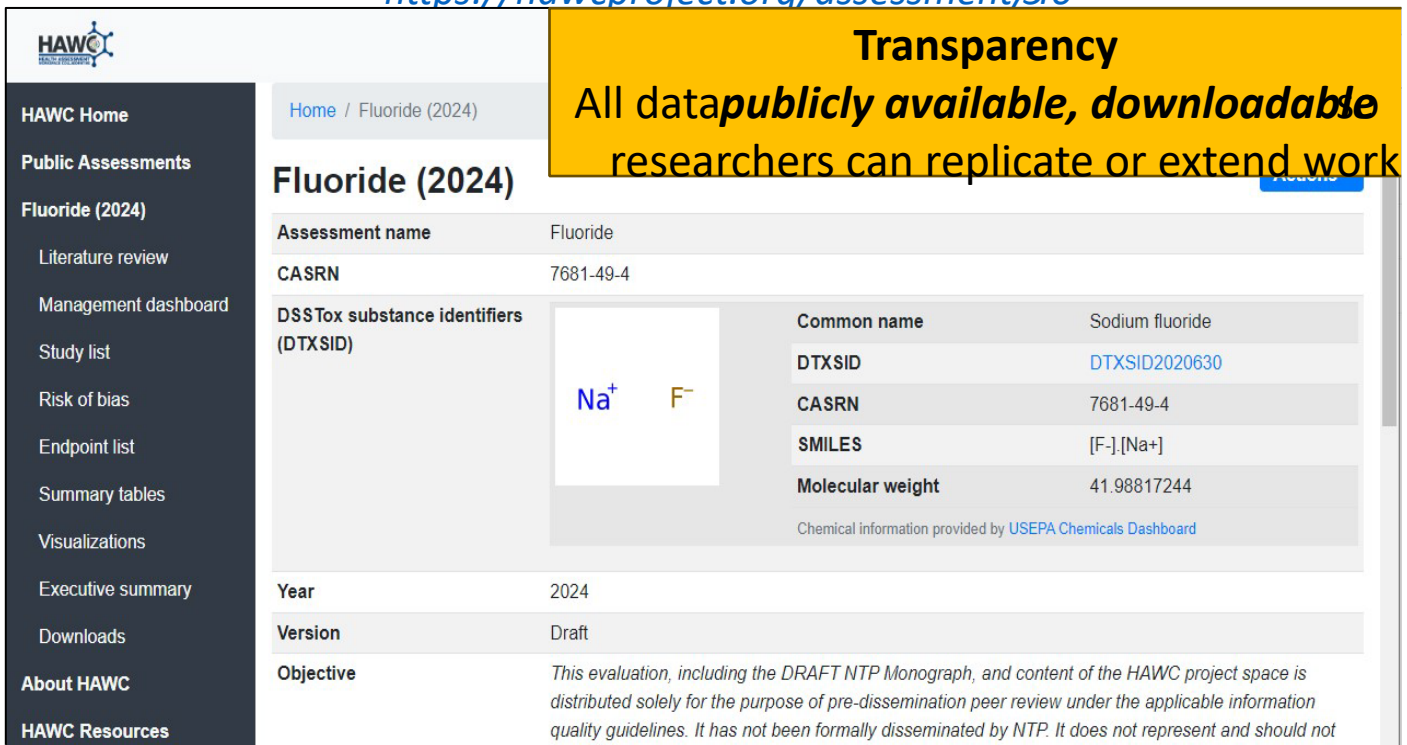
and visualizations

- Health Assessment Workspace Collaborative (HAWC) developed at DTT, NIEHS (*Shapiro et al., 2018*)

https://hawcproject.org/assessment/40

Transparency

All data ***publicly available, downloadable*** so researchers can replicate or extend work



- Open source, web-based application for data extraction

OHAT approach to systematic review

- **Systematic Review**
  - Planning and protocol development
  - Identify evidence
    - Comprehensive literature search
    - Literature screening
  - **Evaluate evidence**
    - Extract data
      - **Risk of bias assessment**

- Evaluate **7 risk-of-bias domains**
  - ✓ Confounding bias
  - ✓ Exposure

  Key domains: Greatest potential to impact results of a study

Risk of Bias Ratings	
- -	Definitely high
-/NR	Probably high or NR
+	Probably low
++	Definitely low

NR: Not reported

characterization ✓ Outcome

assessment ○ Selection bias ○

Attrition bias ○ Selective reporting ○

Other (e.g., statistical analyses)

Transparency Interactive risk of bias ratings and rationale

for each individual study available in HAWC

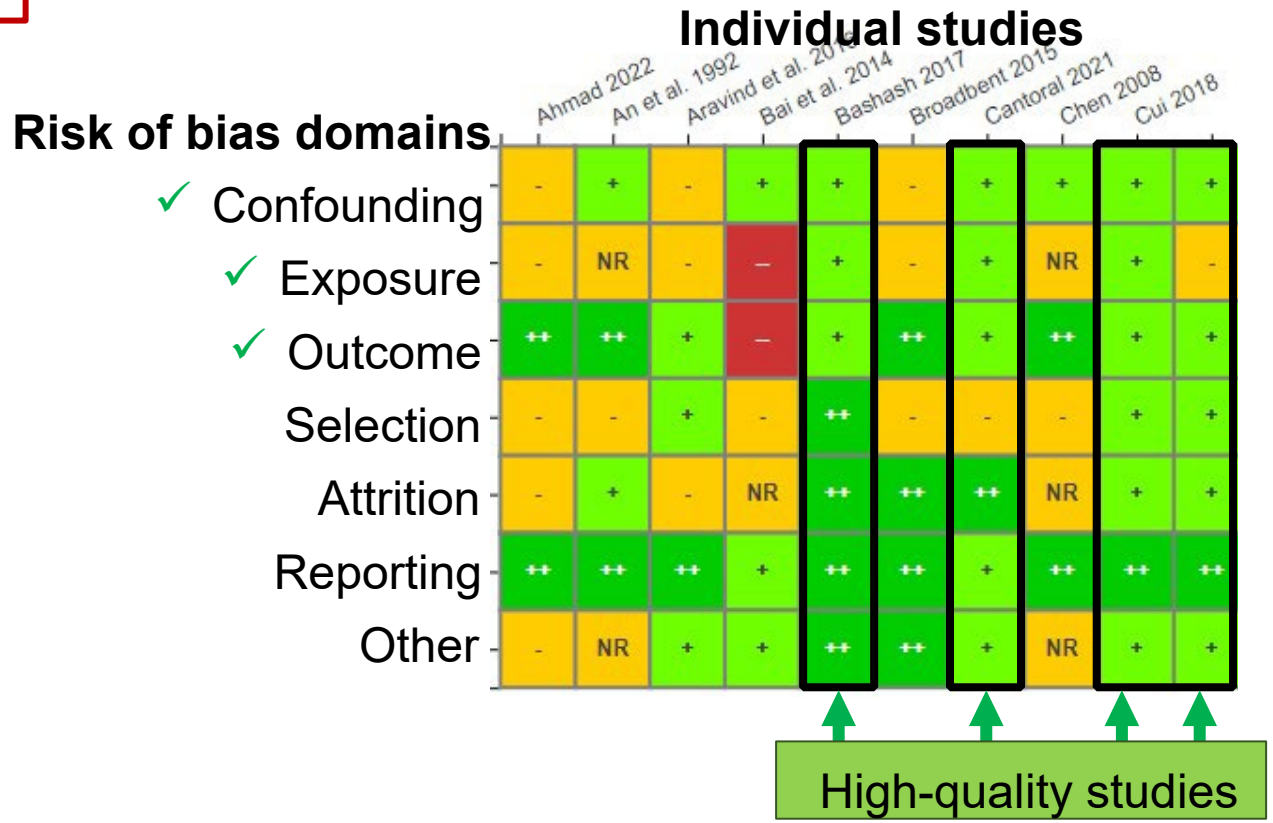
https://hawcproject.org/assessment/405

High quality studies represent **the best evidence**, and are basis for the Monograph's conclusions

- A high-quality study's **risk of bias ratings** are:
  - **+** For most domains
  - **++** No more than one in a key domain
  - **-** None in any domain

Risk of Bias Ratings	
- -	Definitely high
-/NR	Probably high or NR
+	Probably low
++	Definitely low

NR: Not reported



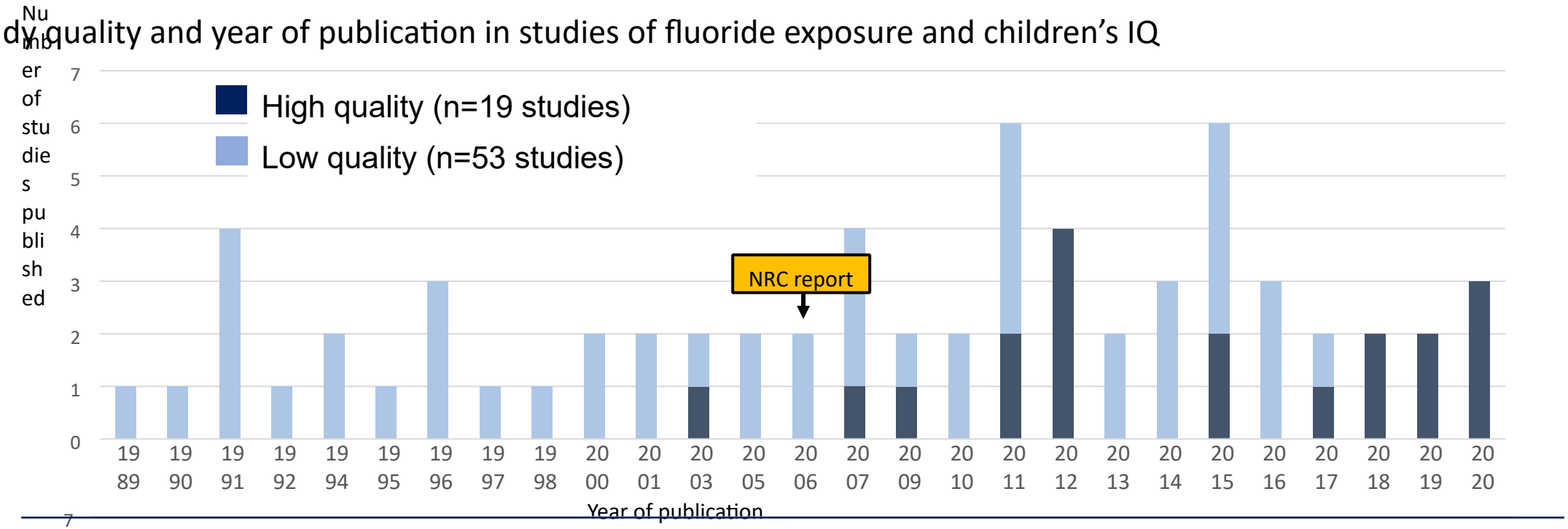
Id quality" and "low quality" studies

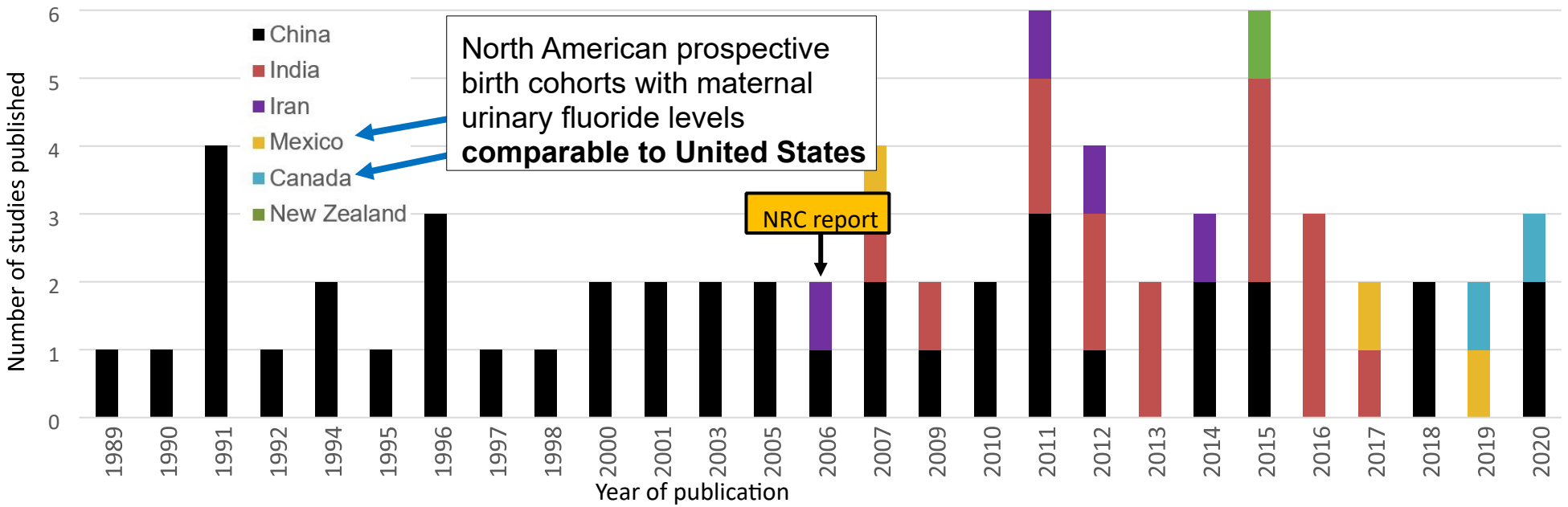
Characteristics of high-quality studies

Important for determining confidence

- Most established exposure occurred prior to outcome assessment (i.e., temporality)
  - e.g., prospective cohort studies or prevalence of dental fluorosis in children, limiting study populations to children who lived in an area for long periods of time
- Used IQ tests that were appropriate for the population being studied, outcome assessors were blind to fluoride exposure status
- Accounted for **key confounders** (e.g., age, sex, socioeconomic status) including potential co-exposures to other neurotoxins (e.g., arsenic, lead intake)
- Used individual-level exposure assessment measures (e.g., urine or water)
  - Or, if using group-level data, confirmed regions being compared had differences in fluoride exposure
- Used appropriate sampling techniques for study populations and statistical approaches for analyses
  - e.g., stratified multistage random sampling, regression techniques that account for clustering

Study quality and year of publication in studies of fluoride exposure and children's IQ

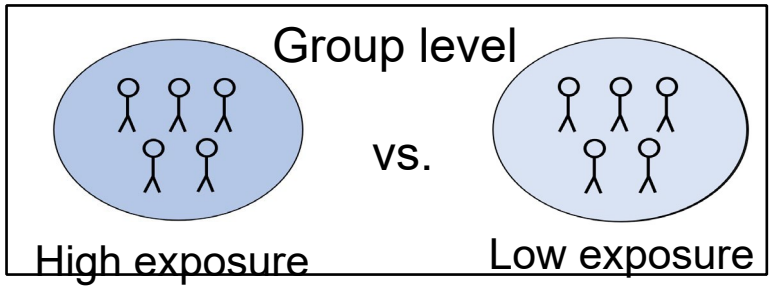




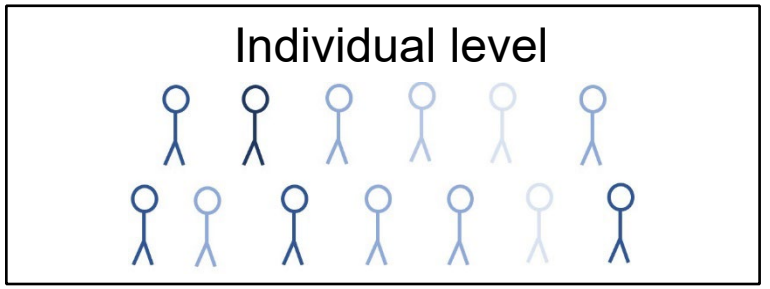
NRC: National Research Council

Study location and year of publication in studies of fluoride exposure and children's IQ

Exposure data fell into two general categories



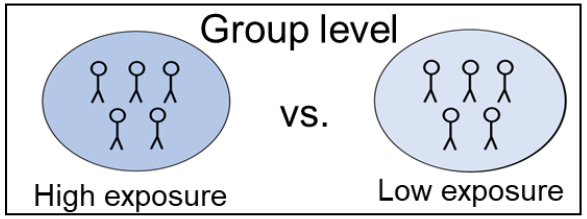
- Reported group-level exposure measures
- Compared mean IQ of children living in "high" fluoride areas to children living in "low" fluoride areas
- Measures included
  - Village or area of residence (endemic vs. non-endemic)
  - Drinking water
  - Children's urine
  - Severity of dental fluorosis
  - Coal burning



- Reported individual-level exposure measures
- Reported regression coefficients for change in children's IQ per 1 mg/L increase in urinary fluoride levels
- Measures included
  - Children's urine
  - Maternal urine
  - Drinking water
  - Fluoride intake
  - Serum

Consistency across high- and low-quality studies

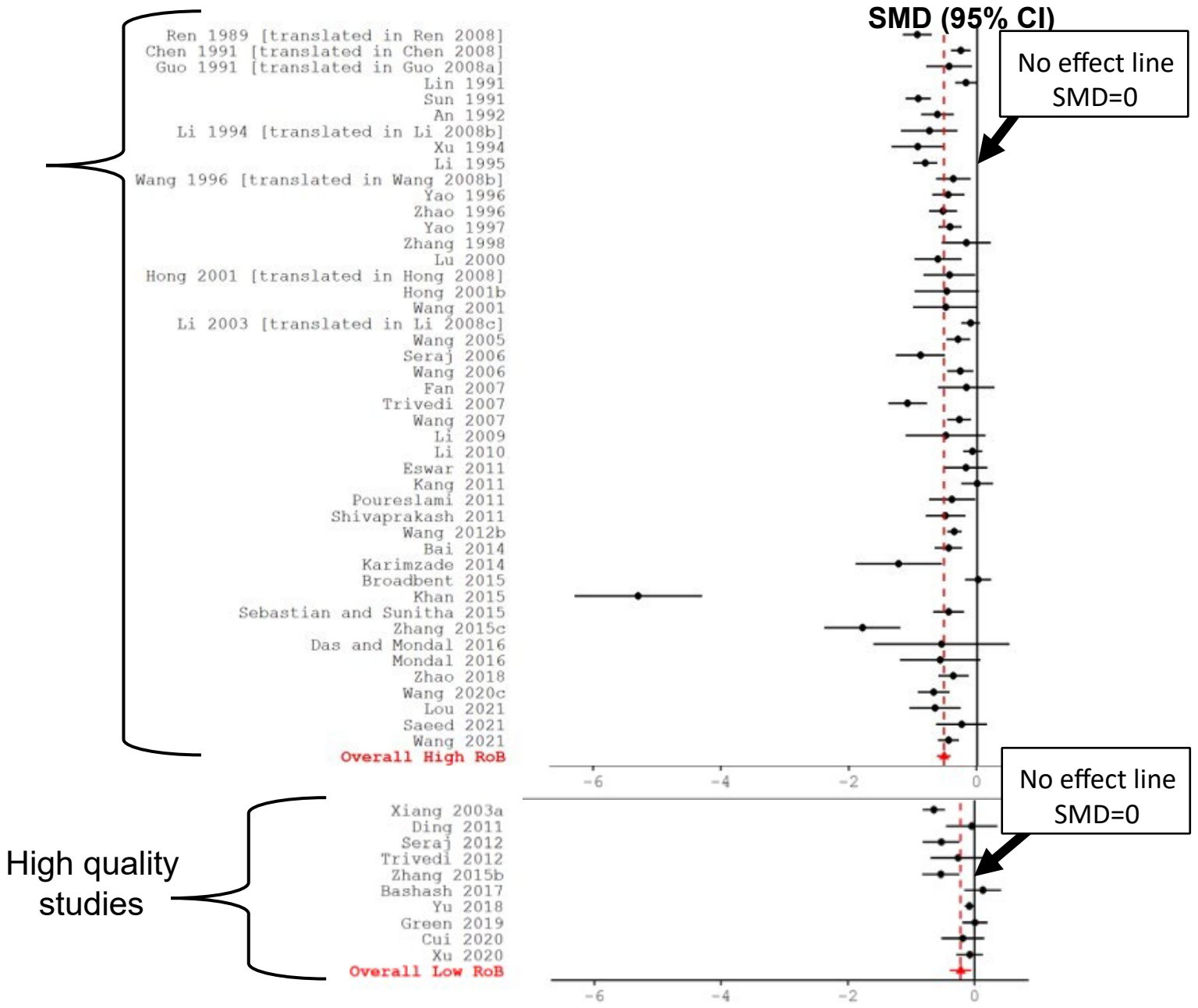
Group-level data



- Standardized mean difference (SMD) for studies comparing children's IQ in a "high" fluoride exposure area vs. a "low" fluoride exposure area

Children in high fluoride communities have statistically significantly **lower IQ**

CI: Confidence intervals



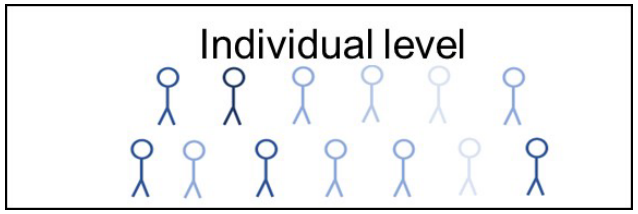
Low quality studies

Not all high-quality studies reporting group level data are displayed (e.g., studies that did not report data in a way that could be plotted as an SMD)

Consistency across high- and low-quality studies

ELEMENT and MIREC cohorts reported maternal urinary fluoride levels **comparable to the United States** (*Ugyturk 2020, Malin 2024*)

Individual-level data

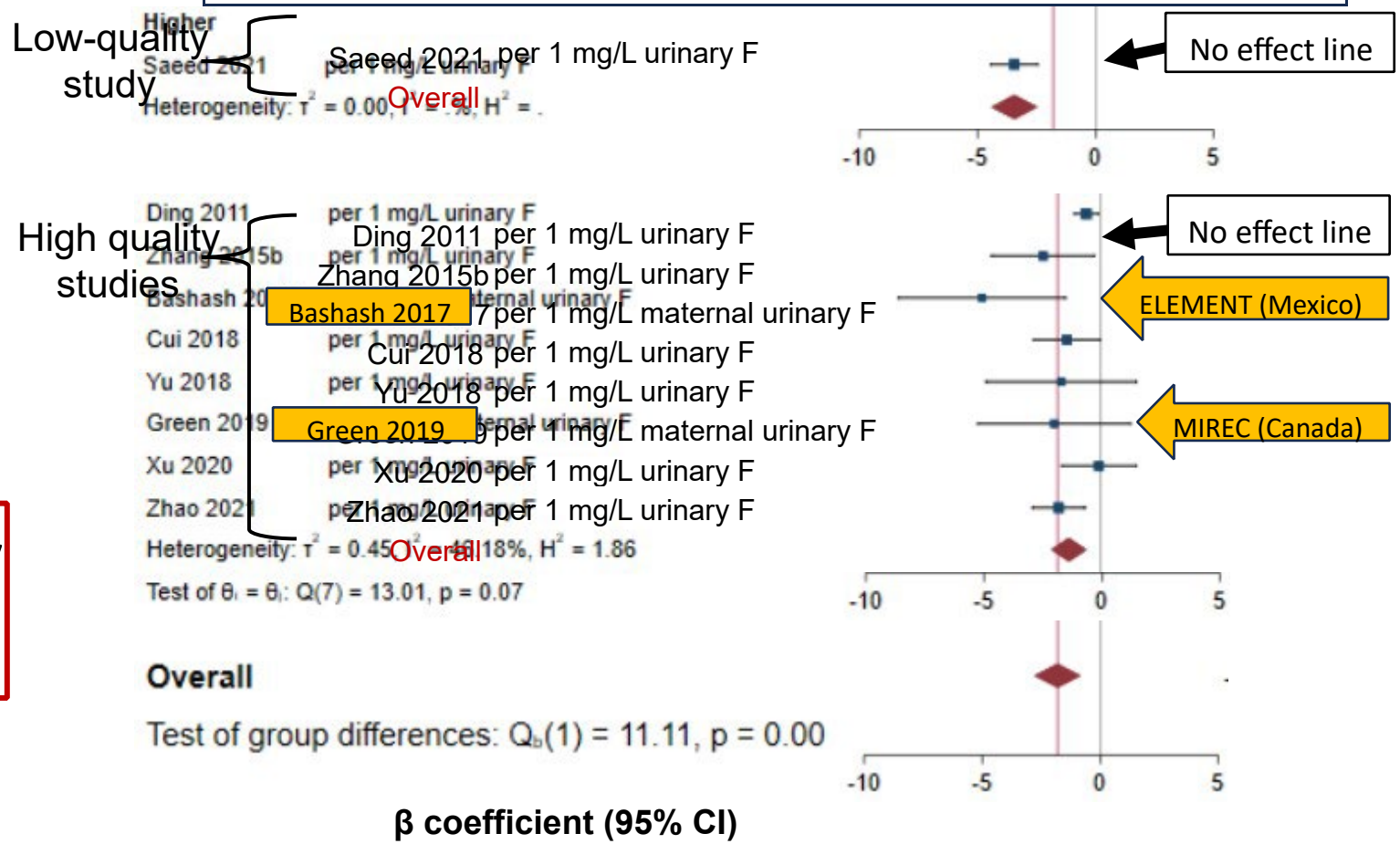


- Green et al 2019 (MIREC): β = **-1.95** (95% CI: -5.19, 1.28)
- Bashash 2017 (ELEMENT): β = **-5.16** (95% CI: −9.12, −1.19)

Interpretation: Per 1 mg/L increase in maternal urinary fluoride, → 2 to 5 point decrease in children's IQ

- Regression coefficients (β) and 95% CIs for change in children's IQ per 1 mg/L increase in maternal or children's urinary fluoride

For every 1 mg/L increase in urinary fluoride there is a statistically significant **decrease children's IQ**



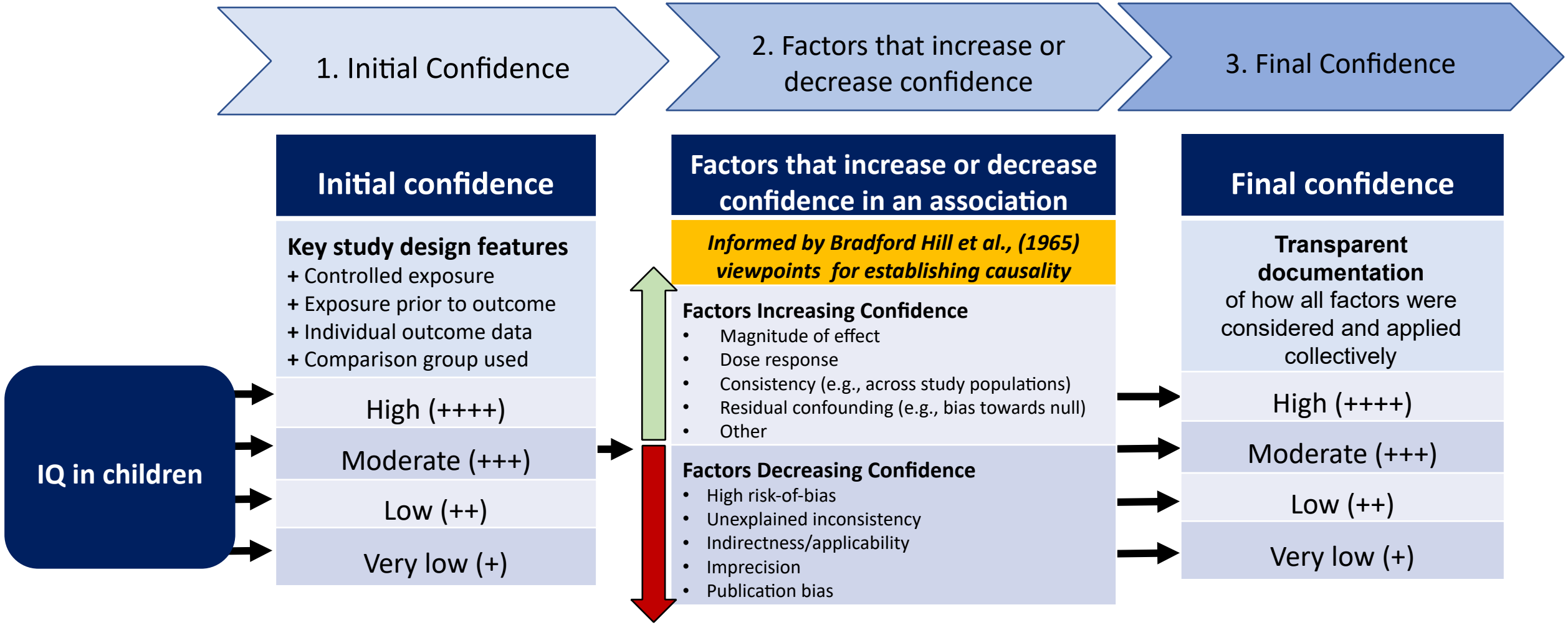
Reference Unit of exposure

β coefficient (95% CI)

Confidence ratings

- Rate confidence in bodies of evidence that overall findings ***reflect the true exposure-effect relationship***
- Four-point scale:
  - High confidence
  - Moderate confidence
  - Low confidence
  - Very Low confidence
- Performed for bodies of evidence on outcome basis
- Considers principles that are ***consistent with causation***

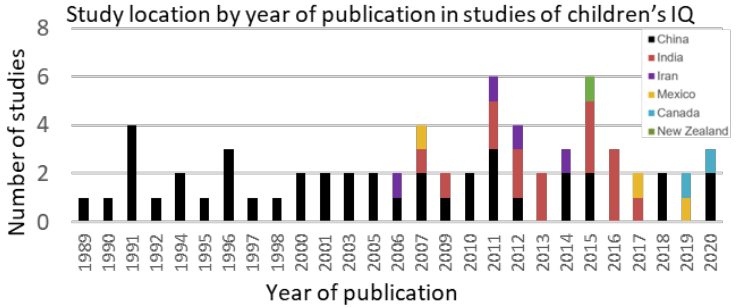
3 steps for determining confidence

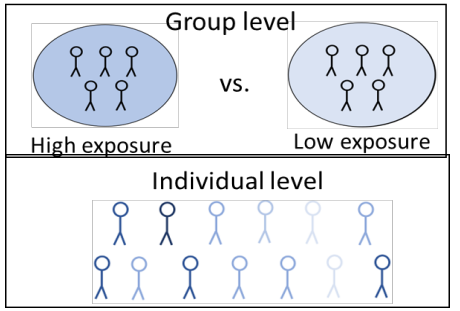


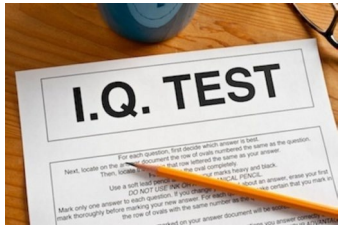
Considerations for confidence ratings

Studies of fluoride exposure and children's IQ

7. Consistent inverse association across:
   - 18 of 19 high quality studies
   - 46 of the 53 low quality studies
   - Study populations from different countries
   - Study designs (cross-sectional, prospective cohort)
   - Risk of bias ratings
   - Exposure matrices (water and urine)
   - Type of exposure data (group and individual level data)
   - Timing of exposure (pre- and post-natal)
   - Outcome assessment type (different types of IQ tests)







8. Heterogeneity in methods, NOT heterogeneity in results
9. Each level of consistency **strengthens** overall confidence
10. Determined confounding could not explain these results *(see NTP Monograph for details)*

NTP Conclusion:

Moderate confidence that

higher fluoride exposure is associated with lower IQ children

Extensive peer review

2019-2020

National Academies of Science, Engineering, Medicine (NASEM) committee reviewed initial (2019) & revised (2020) drafts

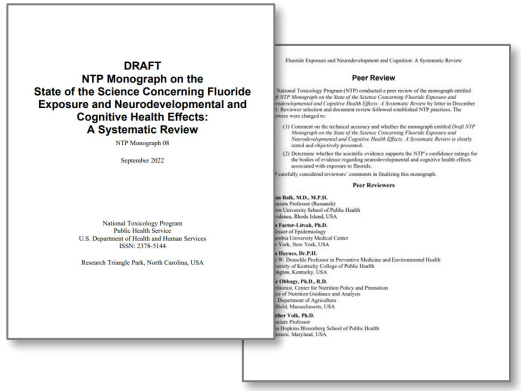
NTP revised Monograph in response to these reviews

2021

External peer review by 5 independent reviewers of 2021 draft NTP Monograph (typical NTP peer review process)

Both **NASEM reviews** & author responses provided

Reviewers ***unanimously*** agree with NTP's conclusions



2022

DTT Scientific Director approves NTP Monograph to be published (May 2022)

NTP/NIEHS Director asks NTP Board of Scientific Counselors (BSC) to review authors' responses to external peer review & *interagency comments on Monograph & meta-analysis (MA)

2023

NTP BSC working group review of author responses to external peer review & *interagency comments on Monograph & MA

Both **NASEM reviews** & author responses provided

Issued recommendations for language refinement & clarification

No major issues identified with methods, analyses, conclusions

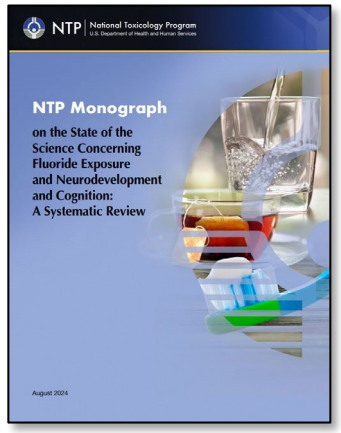
Encouraged rapid publication

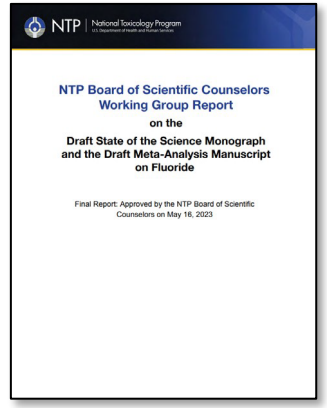
Authors respond to all NTP BSC comments

2024

Final publication
August 2024

(MA in press)





*Agencies and offices that provided comments on Monograph &
Office of the Director, NIH
Office of the Assistant Secretary of Health (OAS
Food and Drug Administration (FDA
Centers for Disease Control (CDC
National Institute of Dental and Craniofacial Research (NID
National Institute of Child Health and Development (NICH

Of note…

- Final confidence conclusions based primarily on high-quality studies (i.e., the best evidence)
  - Consideration of low-quality studies does not decrease confidence in overall body of evidence
- Conclusions based primarily on non-US studies where total fluoride exposure approximated *>1.5 mg/L fluoride in drinking water
  - Several high-quality prospective birth cohort studies with maternal urinary fluoride levels comparable to the United States

  **>1.5 mg/L refers to WHO Drinking Water Guideline of 1.5 mg/L; chosen to describe "higher" fluoride exposure in the NTP Monograph based on an overall assessment of the epidemiology literature; represents a useful total fluoride exposure equivalent metric (no alternative safety guidelines for total fluoride exist)*
- Review ***does not***
  - Evaluate benefits of fluoride or provide a risk/benefit analysis
  - Address whether ***sole exposure*** to fluoride at 0.7 mg/L in drinking water is associated with neurodevelopment and cognitive effects
- Targeted research that prospectively examines the association between fluoride exposure and children's IQ in optimally fluoridated areas of the United States would add clarity to the existing data at lower levels

Exposure considerations

- Fluoride in drinking water
  - Provides useful estimates of long-term population exposures
  - May underestimate total exposure because it does not capture the amount of water ingested or other sources of ingested fluoride

- Fluoride in urine
  - Biological measure that captures individual's total fluoride exposure
  - Represents a limited (recent) time-period
  - Multiple measurements would be more robust, e.g., cohort studies with maternal urinary fluoride had multiple measures throughout pregnancy

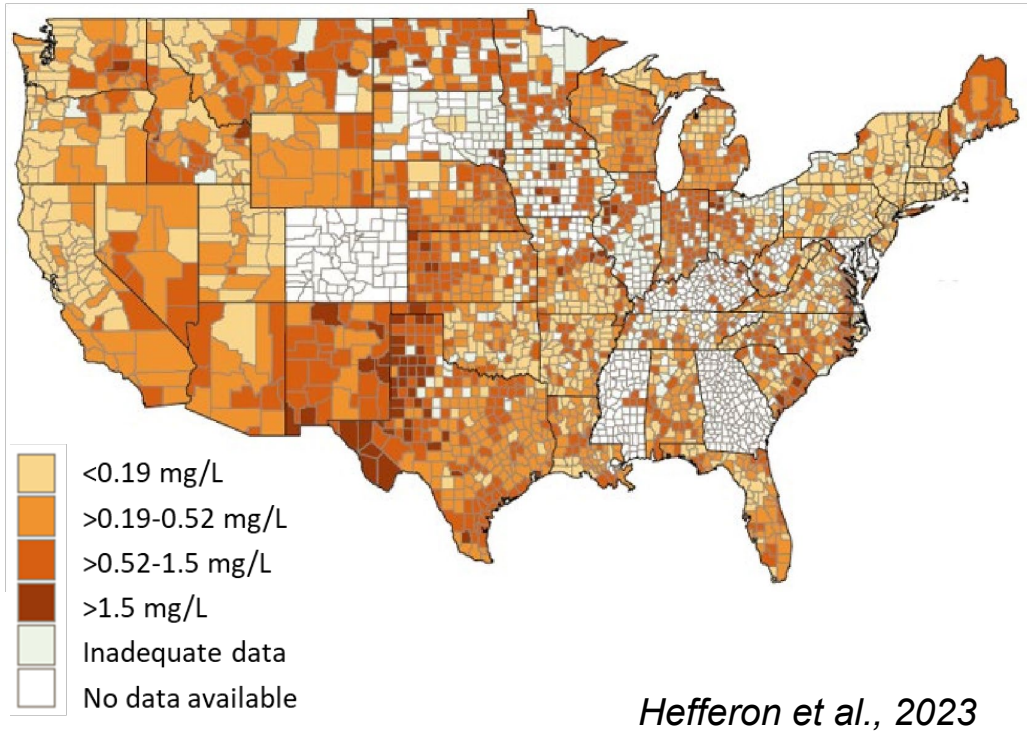
- Small number of studies at low exposure levels
  - Limited exposure contrasts, which makes it more difficult to detect a true effect, if it exists

Relevance to the United States

- NTP conclusions are relevant to some pregnant women, infants, and children living in the United States

– People may have total fluoride exposures higher than levels in drinking water

– **Over 2.9 million people** in the United States served by CWS receive drinking water with >1.5 mg fluoride/L



Hefferon et al., 2023

NEWS & FEATURES

In Millions of Homes, High Fluoride in Tap Water May Be a Concern

In communities across the U.S., water contains levels of fluoride some experts say could be harm developing brains.

Top: Water tower in Comfort, Texas. Visual: Marcus Wennrich/ iStock/Getty Images Plus

BY MICHAEL SCHULSON
05.06.2024

> *Lost in that debate are the roughly 3 million Americans whose water naturally contains higher concentrations of fluoride — often at levels that could have neurodevelopmental effects.*

Estimated fluoride levels in community water systems by county

Relevance to the United States

- NTP conclusions are relevant to some pregnant women, infants, and children living in the United States
  - People may have total fluoride exposures higher than levels in drinking water
  - **Over 2.9 million people** in the United States served by CWS receive drinking water with >1.5 mg fluoride/L

NEWS & FEATURES

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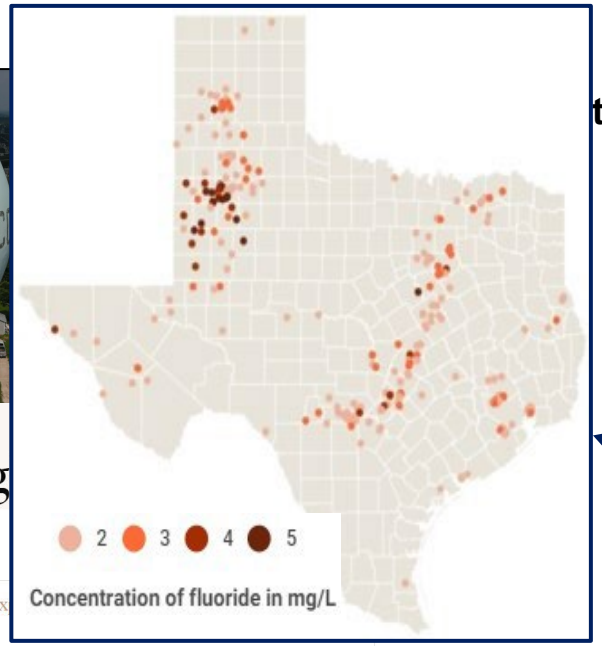
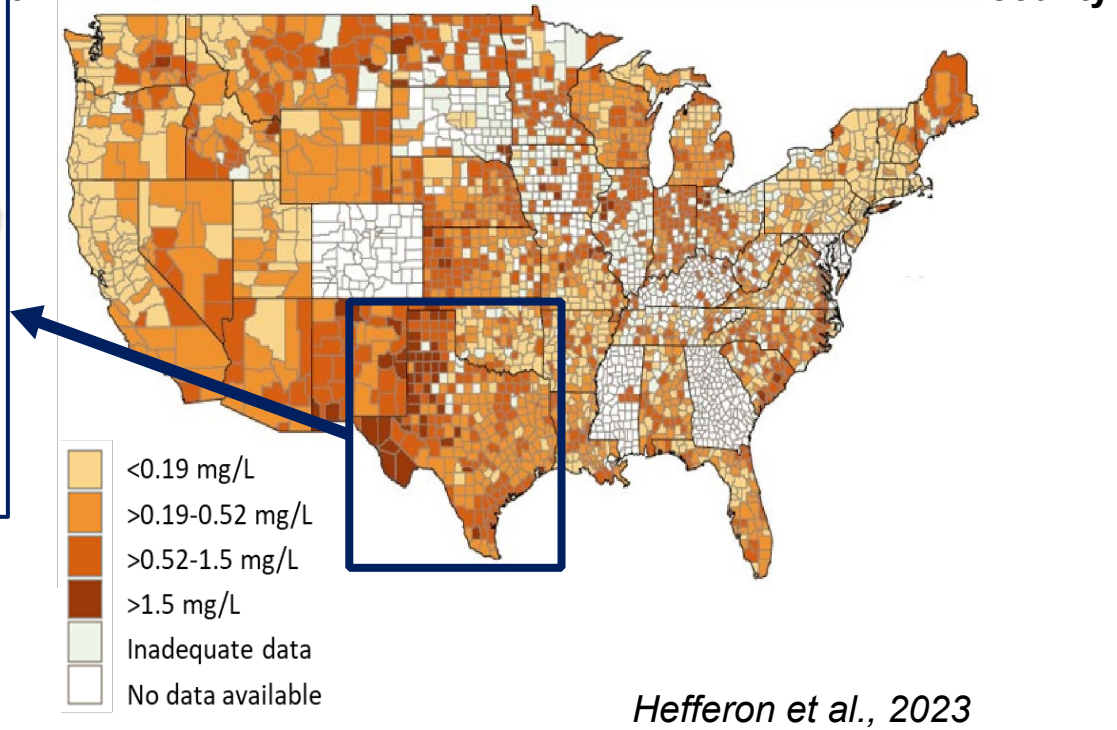
Top: Water tower in Comfort, Texas. Visual: Marcus Wennrich/ iStock/Getty Images Plus





Hefferon et al., 2023

> *Lost in that debate are the roughly 3 million Americans whose water naturally contains higher concentrations of fluoride — often at levels that could have neurodevelopmental effects.*

Fetal and developing brains are especially vulnerable

- Benefits of fluoride are from topical contact with teeth
- No benefit from gestational exposure
- Fetal exposure:
  - Fluoride from maternal blood crosses placenta
  - Fluoride stored in bone and remobilized into bloodstream during pregnancy
- Formula-fed infants residing in fluoridated communities at higher risk of fluoride toxicity
  - 3-4 times greater exposure to fluoride than adults on a per body-weight basis
  - ~70-fold higher fluoride intake than exclusively breastfed infants
  - Retain more fluoride than breastfed infants


The New York Times

Is Fluoridated Drinking Water Safe for Pregnant Women?

New research suggests a link between prenatal fluoride levels and behavioral issues in children. Experts are divided on the study's

By Alice Callahan and Christina Caron

May 22, 2024

NTP Monograph played central role in recent federal trial

- What was the lawsuit about?

– Plaintiffs petitioned EPA to evaluate fluoride in drinking water, EPA denied the petition and under Amended Toxic Substances Control Act (TSCA), Plaintiffs were entitled to a judicial review • Monograph relied on by both Plaintiffs and EPA as a “high-quality review”

- What was the Court’s ruling?
  - – On September 24, 2024, a federal district judge found that the 0.7 mg/L fluoride in drinking water, level considered “optimal” in the United States, poses an ***“unreasonable risk”*** of IQ loss in children which, under the toxics law, requires ***“a regulatory response”***
  - – Finding did not conclude with certainty that fluoridated water is injurious to public health
  - – Court finds the risk is ***sufficient*** to require the EPA to engage with a regulatory response, but does not dictate what that response must be, decision left to the EPA,
  - – TSCA allows wide spectrum of potential risk-management measures from warning labels or public advisories to prohibiting the manufacturing and distribution of a chemical

Public health community can use the NTP systematic review as part of ongoing evaluations of the role of fluoride in drinking water

Literature since May 1, 2020?

- Addendum updated through October 2023 to match timeframe of meta-analysis (in press)
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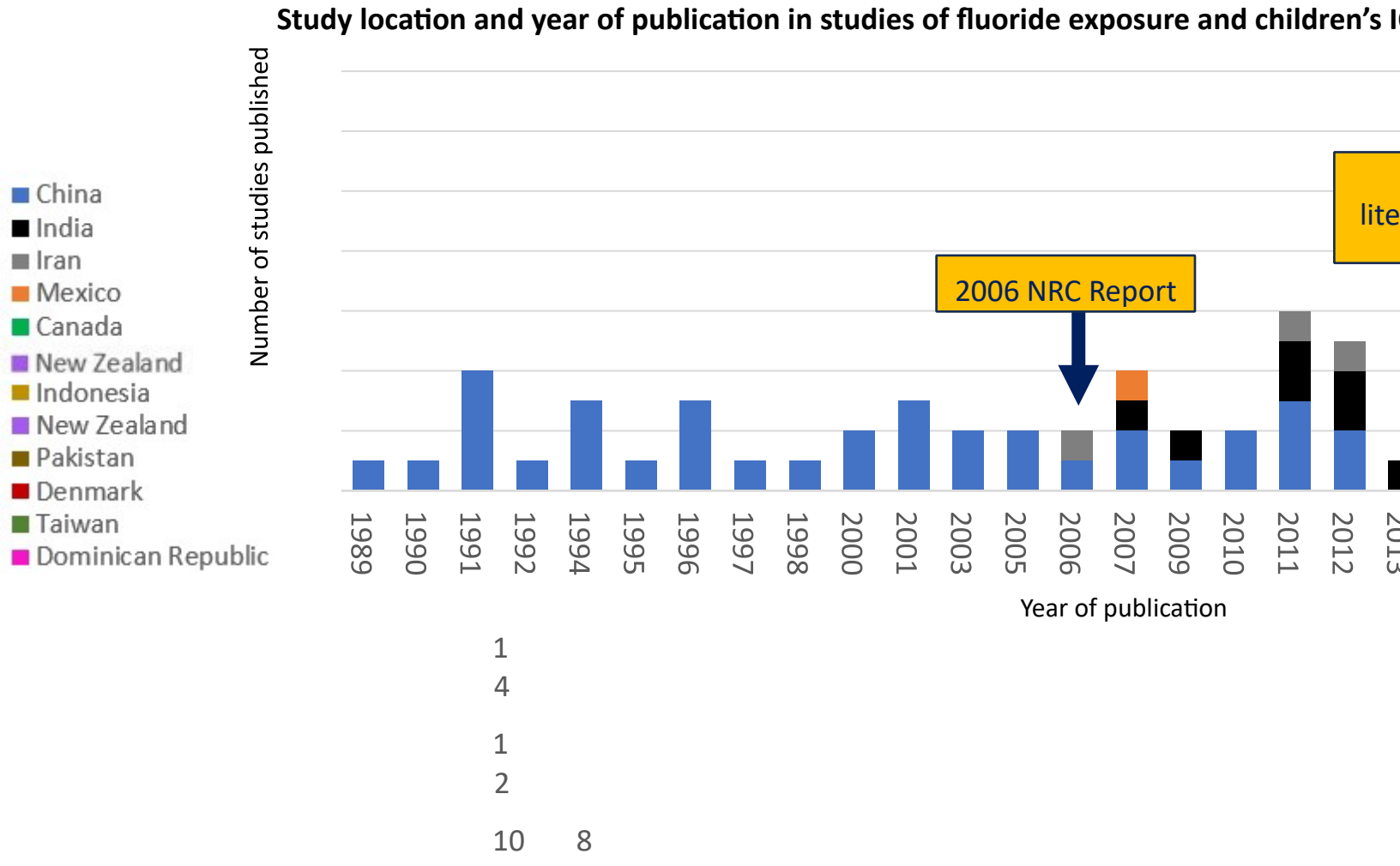

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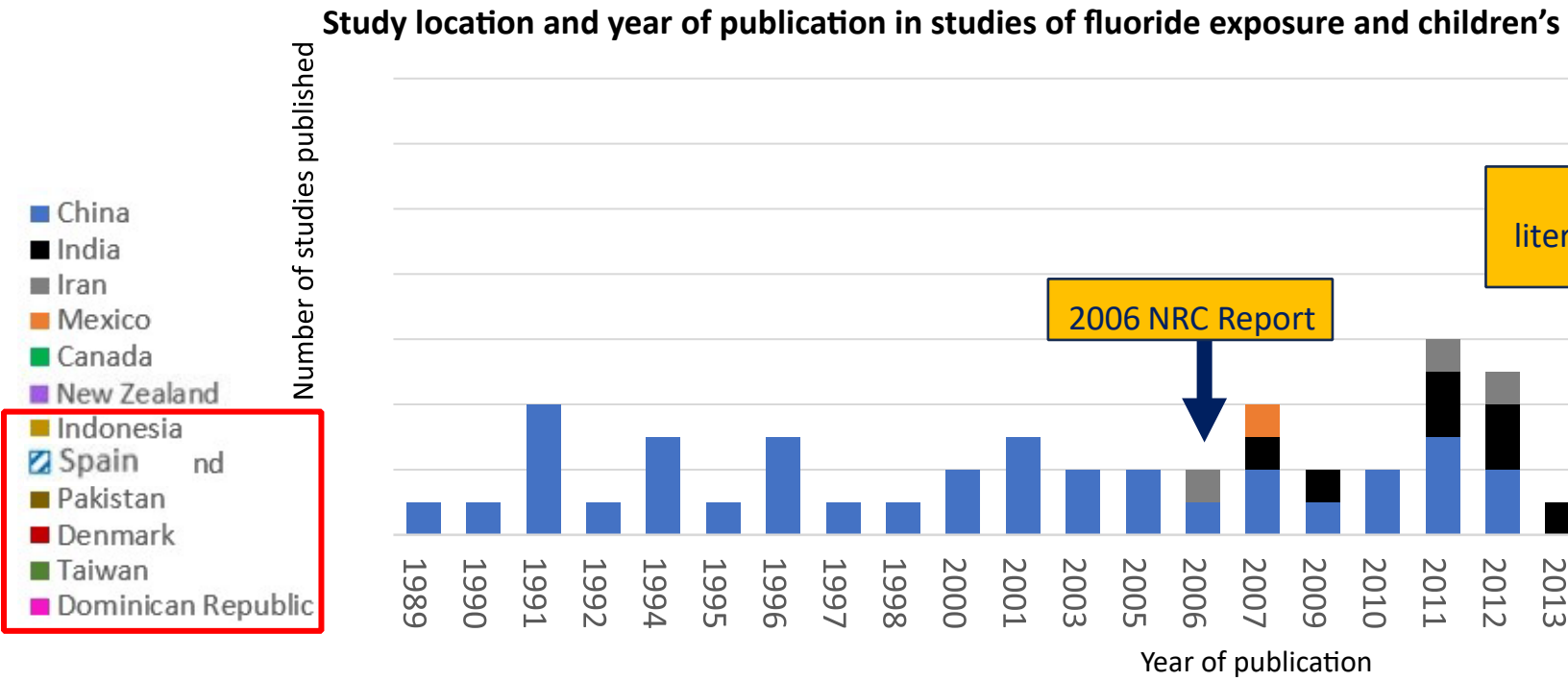
Literature since May 1, 2020?

- Addendum updated through October 2023 to match timeframe of meta-analysis (in press)
- 28 new studies
  - 12 of 12 high quality studies reported inverse associations (6 in new study populations)
  - 13 of 16 low quality reported inverse associations



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DTT co-authors

ICF co-authors a

Sorina Eftim, F

2
0

Ac

Brandy Beverly, PhD

Christopher Sibrizzi, MPH

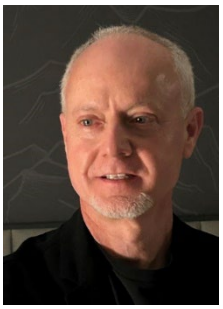
Kembra Howdeshell, PhD

Ro

Kelly Shipkowski

Andrew Rooney, PhD
Acting Branch Chief
IHAB, DTT, NIEHS

John Bucher, PhD *(retired)*
Former Scientific Director of DNTP and Associate Director of NTP



Byron Lunn,

Ruth Blain, PhD DrPH

Kristen Magnuson, MESM

Suril Mehta, DrPH

Pamela Hartman, MEM

Internal reviewers (NIEHS)

Matabel

I, PhD (*currently Neurocrine Biosciences*,

Inc.)

Jesse Cushman, PhD

Freya Kamel, PhD *(retired)*

Thank you!
Questions?

email: kyla.taylor@nih.gov

WSBH Petition #22. December 8, 2024

Washington State Board of Health PO Box 47990, Olympia, WA 98504-7990 wsboh@doh.wa.gov
Petitioners: Washington Action for Safe Water and Bill Osmunson DDS MPH

Dear Washington State Board of Health

"Failing to Assure Safe Water" Addendum B to our petition #22 for rule change.[1]

The Washington State Board of Health (Board) has been charged by the Legislature to assure safe public drinking water.[2] The Board appears to attempt delegating responsibility for determining the complex, scientific pharmacological, toxicological, epidemiological, chemistry, physiological effects, ethics, benefits, risks, costs and laws of fluoridation (CWF, Community Water Fluoridation, the addition of fluoride to public water onto the cities who have the fewest experts and often the least financial resources to make the judgement on fluoridation's safety, efficacy, ethics and cost-benefit-risk analysis.

The Board claims they do not add fluoride to pubic water, implying lack of jurisdiction or responsibility for the Board's advice. Words matter. The time and expense for the determination of safety, efficacy, dosage, ethics, laws and costs of these experts for each of the 281 cities and towns in Washington State is unreasonable. Evaluation of the science takes hundreds of hours and multiplying hundreds of hours by experts, times 281 cities and towns makes evaluation unreasonably expensive.

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[1] Consistent with health and safety issues in Title 246, Title 173, Title 296, WAC 173-340, and WAC 296-62-07521; this petition is made in compliance with RCW 34.05.330 and WAC Chapter 82-05.

Our petition for amendment to WAC 246-290-220

"(8) In keeping with the Federal Safe Drinking Water Act S.433 and the Food Drug and Cosmetic Act, Title 21, the Board of Health does not recommend any substance be added to water with intent to treat humans, unrelated to treatment of water as defined in RCW 18.64.011(14)(15) or 21 U.S. Code § 321(g)(1), unless approved by the Food and Drug Administration in compliance with the U. S. Food, Drug and Cosmetic Act. This recommendation does not apply to substances added to water to make water safer as determined by the U.S. Environmental Protection Administration in compliance with the Safe Drinking Water Act."

[2] Pursuant to RCW 43.20.50 (1) "The state board of health shall provide a forum for the development of public health policy in Washington state. . . ." RCW 43.20.50 (2) "In order to protect public health, the state board of health shall: (a) Adopt rules for group A public water systems . . . necessary to assure safe and reliable public drinking water and to protect the public health. Such rules shall establish requirements regarding: . . . (ii) Drinking water quality standards . . . (b) Adopt rules as necessary for group B public water systems . . ." And further under RCW 70.142.010 to establish standards for chemical contaminants in public drinking water and "consider the best available scientific information establishing the standards."

But the delegation gets worse. Another option is for the voters with the least expertise, education, and experience to be given the responsibility, based on media or distrust of authorities, to make the complex time-consuming decision of whether to fluoridate or not and vote the unapproved prescription drug on their neighbors. Words matter and marketing by profitable industry is pitted against patients who have been harmed. To assure the public the water is safe, the Board must immediately caution cities and towns in Washington State the science has changed, it is past time to obey Federal and state law. **DO NOT ADD FLUORIDE TO TAP WATER.**

The task to simply educate the Board has been 15 years of our lives and although we have made small incremental steps, such as the Board accepting the intent of adding fluoride to public water is to mitigate or prevent a disease, the Board is still placing the profits of industry over the health of the public.

RCW 57.08.012. Authorizes water district commissioners to vote to fluoridate the water or vote to have a majority of the electors vote on a proposition to fluoridate. RCW 57.08.012 is silent regarding the determination of safety, efficacy, dosage, Good Manufacturing Practices for Pharmaceuticals, purity of the product, concentration in water, etc.

The AGO 1992 No.17,

> "2. The Legislature has authorized the Board of Health to establish, and the Department of Health to enforce, a comprehensive regulatory scheme for public water systems." The Board of Health stated: "The Board does not appear to have authority to adopt rules related to a water district deciding whether to fluoridate. The Board's authority is to regulate allowable concentration levels and method of approval of water additives." (June 9, 2010 Board Meeting Handout, page 2, emphasis added).

The Board has the authority to lower fluoride concentration added to water to the same level as mother's milk, a mean of 0.004 mg/L so that formula made with fluoridated water would be safe, or to the benchmark dose of fluoride developmental neurotoxicity, 0.2 mg/L as recommended by Grandjean (2022)[3]. The Board has authority to require additives to be pharmaceutical grade and/or provide batch assays of purity.

[3] Grandjean P, Hu H, Till C, Green R, Bashash M, Flora D, Tellez-Rojo MM, Song PXK, Lanphear B, Budtz-Jørgensen E. A Benchmark Dose Analysis for Maternal Pregnancy Urine-Fluoride and IQ in Children. Risk Anal. 2022 Mar;42(3):439-449. doi: 10.1111/risa.13767. Epub 2021 Jun 8. PMID: 34101876; PMCID: PMC9831700. Note: On a population wide basis, fluoride urine concentrations are similar to water fluoride concentration, but not as close on an individual basis.

The toxicity of fluoride is important to understand so that priority of regulation is made. Toxicity puts fluoride within the definition of **RCW 69.38.010** as a poison. Poisons are exempt from poison laws when regulated under drug laws. The Washington Board of Pharmacy determined fluoride was a legend (prescription) drug which requires a doctor's prescription. The Board should regulate fluoride keeping in mind the serious toxic risk and protect the public.

The Washington State Board of Pharmacy, Department of Health letter June 4, 2009, stated:

> "69.38.020 states that "[all substances regulated under chapters 15.58, 17.21, 69.04, and 69.50, and chapter 69.45 RCW are exempt from the provisions [of chapter 69.38 RCW]. Fluoride is a legend drug regulated under chapter 69.41 RCW. RCW 69.41.010 defines a "legend drug" as drugs "which are required by state law or regulation of the state board of pharmacy to be dispensed on prescription only or are restricted to use by practitioners only." In WAC 246-883-020 (2), the Board specified that "legend drugs are drugs which have been designated as legend drugs under federal law and are listed as such in the 2002 edition of the Drug Topics Red Book. " Enclosed are copies of pages 169, 342, and 690 of the 2()02 edition of the Drug Topics Red Book. Page 169 is the key to the products requiring prescription (legend drugs) and page 342 contains the fluoride products. Page 690 contains the listing of over-the-counter fluoride products, primarily toothpaste containing fluoride." (Highlight supplied)

In other words, fluoride when regulated in compliance with drug laws does not need to be regulated as a poison when used with intent to prevent human disease. When regulating fluoridation, cities and the Board must keep in mind fluoride is highly toxic and a legend drug being added to public water without patient consent, voted on by the least authoritative chemical, toxicological and pharmaceutical experts in the state.

The Board of Pharmacy Department of Health letter continues:

> "While RCW 69.41.010 restricts the dispensing of prescription drugs to practitioners, the legislature has authorized water districts to fluoridate their water supplies in RCW 57.08.012 . . By adopting a specific statute on the fluoridation of water supplies, the legislature has superseded the more general statutes in the legend drug act requiring a practitioner to dispense fluoride."

However, RCW 57.08.012 does not exempt fluoride from being regulated as much as possible under legend drug laws which require a doctor's prescription. The Board of Pharmacy does not prevent the Board of Health from lowering the concentration or requiring water suppliers from adhering to Federal laws as this petition recommends or Good manufacturing practices, purity, dosage, or/and label. No law prevents the education of the public or protection of the public from harm.

> Please provide a copy of the Board's advice, guidance, recommendations provided to cities regarding the product purity, individual patient dosage, GMP, and label.

The Washington State Legislature gave the Board of Health the task of assuring the public that water is safe and fluoridation is not safe. The Legislature did not give that task to the public, cities or public water purveyors. In order to assure the public that fluoridation is safe, please respond to the following:

#1. The Board claims and assumes fluoridation is **effective** without a single randomized controlled trial, primarily historic observations which are fraught with bias. The Board protects fluoride exposure based on endorsements from the fluoridation lobby profiting from fluoride, marketing fluoride as benefit. The FDA told the Board a decade ago, fluoridation would be "banned" if application for approval were made. The Board is not an authority to determine the effectiveness of any drug or chemical marketed with intent to prevent disease. Only the FDA CDER has that authority and the FDA CDER has not approved the ingestion of fluoride. Topical is approved with the warning, Do Not Swallow.

REQUEST: Please provide the public and Washington State Cities with quality research, published, peer reviewed randomized controlled trials of fluoride ingestion's efficacy. The Board claims efficacy, protects fluoridation as though there is efficacy, but fails to provide quality research on efficacy because the Board does not have quality research on efficacy, only observational evidence which is incomplete.

The CDC: ***"****Ingestion of fluoride is not likely to reduce tooth decay."*[i] *"For 65 years, community water fluoridation has been a safe and healthy way to effectively prevent tooth decay."*[ii] *". . . fluoride prevents dental caries predominately after eruption of the tooth into the mouth, and its actions primarily are topical for both adults and children…"*[iii]

The NIDR: *"An analysis of national survey data collected by the National Institute of Dental Research (NIDR) concludes that children who live in areas of the U.S. where the water supplies are fluoridated have tooth decay rates nearly identical with those who live in nonfluoridated areas"*[iv]

The NIH: Evidence for fluoridation preventing disease is incomplete.

"By 1981, it was therefore possible to propose a paradigm shift concerning the cariostatic mechanisms of fluorides in which it was argued that the predominant, if not the entire, explanation for how fluoride controls caries lesion development lies in its topical effect on de- and remineralization processes taking place at the interface between the tooth surface and the oral fluids. This concept has gained wide acceptance... With today's knowledge about the mechanisms of fluoride action, it is important to appreciate that, as fluoride exerts its predominant effect... at the tooth/oral fluid interface, it is possible for maximum caries protection to be obtained without the ingestion of fluorides to any significant extent."
SOURCE: Aoba T, Fejerskov O. (2002). *Critical Review of Oral Biology and Medicine* 13: 155-70.

"When it was thought that fluoride had to be present during tooth mineralisation to 'improve' the biological apatite and the 'caries resistance' of the teeth, systemic fluoride administration was necessary for maximum benefit. Caries reduction therefore had to be balanced against increasing dental fluorosis. The 'caries resistance' concept was shown

to be erroneous 25 years ago, but the new paradigm is not yet fully adopted in public health dentistry, so we still await real breakthroughs in more effective use of fluorides for caries prevention."
SOURCE: Fejerskov O. (2004). Changing paradigms in concepts on dental caries: consequences for oral health care. *Caries Research* 38: 182-91.

“Our analysis shows no convincing effect of fluoride-intake on caries development. . . A Bayesian analysis of multivariate doubly-interval-censored dental data.”[v]

“Since April of 1999, I have publicly decried the addition of fluoride, especially hydrofluosilicic acid, to drinking water for the purpose of preventing tooth decay.”
Hardy Limeback, BSc, PhD, DDS, Associate Professor and Head, Preventive Dentistry University of Toronto **http://www.slweb.org/limeback.html**

“Fewer fillings had been required in the nonfluoridated part of my district than in the fluoridated part.” 1997 John Colquohoun PhD, DDS **http://www.slweb.org/colquhoun.html**

“Decay is not the result of fluoride deficiency.” Aoba T, Fejerskov O. (2002). Dental fluorosis: chemistry and biology. Critical Review of Oral Biology and Medicine 13: 155-70.

“A number of recent cessation studies show that stopping fluoridation does literally nothing to increase overall dental decay.” Komarek et al, A Bayesian analysis of multivariate doubly-interval-censored dental data, Biostatistics 2005 6 pp 145-155
"it is now accepted that systemic fluoride plays a limited role in caries prevention." SOURCE: Pizzo G, Piscopo MR, Pizzo I, Giuliana G. (2007). Community water fluoridation and caries prevention: a critical review. Clinical Oral Investigations 11(3):189-93.

“the major anticaries benefit of fluoride is topical and not systemic.” SOURCE: National Research Council. (2006). Fluoride in Drinking Water: A Scientific Review of EPA's Standards. National Academies Press, Washington D.C. p 13.

"Since the current scientific thought is that the cariostatic activity of fluoride is mainly due to its topical effects, the need to provide systemic fluoride supplementation for caries prevention is questionable."
SOURCE: European Commission. (2005). *The Safety of Fluorine Compounds in Oral Hygiene Products for Children Under the Age of 6 Years*. European Commission, Health & Consumer Protection Directorate-General, Scientific Committee on Consumer Products, September 20.

“The results of more recent epidemiological and laboratory studies can be summarized by stating that posteruptive (topical) application of fluoride plays the dominant role in caries prevention."
SOURCE: Hellwig E, Lennon AM. (2004). Systemic versus topical fluoride. *Caries Research* 38: 258-62.

“Current evidence strongly suggests that fluorides work primarily by topical means through direct action on the teeth and dental plaque. Thus ingestion of fluoride is not essential for caries prevention."
SOURCE: Warren JJ, Levy SM. (2003). Current and future role of fluoride in nutrition. *Dental Clinics of North America* 47: 225-43.

"[T]he majority of benefit from fluoride is now believed to be from its topical, rather than systemic, effects."
SOURCE: Brothwell D, Limeback H. (2003). Breastfeeding is protective against dental fluorosis in a nonfluoridated rural area of Ontario, Canada. *Journal of Human Lactation* 19: 386-90.

"For a long time, the systemic effect of fluoride was regarded to be most important, resulting in recommendations to use fluoride supplements such as tablets or drops. However, there is increasing evidence that the local effect of fluoride at the surface of the erupted teeth is by far more important."
SOURCE: Zimmer S, et al. (2003). Recommendations for the Use of Fluoride in Caries Prevention. *Oral Health & Preventive Dentistry* 1: 45-51.

"[F]luoride's predominant effect is posteruptive and topical."
SOURCE: Centers for Disease Control and Prevention. (2001). Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States. *Morbidity and Mortality Weekly Report* 50(RR14): 1-42.

"The prevalence of dental caries in a population is not inversely related to the concentration of fluoride in enamel, and a higher concentration of enamel fluoride is not necessarily more efficacious in preventing dental caries."
SOURCE: Centers for Disease Control and Prevention. (2001). Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States. *Morbidity and Mortality Weekly Report* 50(RR14): 1-42.

"Fluoride incorporated during tooth development is insufficient to play a significant role in caries protection."
SOURCE: Featherstone, JDB. (2000). The Science and Practice of Caries Prevention. *Journal of the American Dental Association* 131: 887-899.

"Current evidence suggests that the predominant beneficial effects of fluoride occur locally at the tooth surface, and that systemic (preeruptive) effects are of much less importance."
SOURCE: Formon, SJ; Ekstrand, J; Ziegler, E. (2000). Fluoride Intake and Prevalence of Dental Fluorosis: Trends in Fluoride Intake with Special Attention to Infants. *Journal of Public Health Dentistry* 60: 131-9.

"Fluoride supplementation regimens suffer from several shortcomings, the first of which may be their derivation from a time when the major effect of fluoride was thought to be systemic. Although evidence that fluoride exerts its effects mainly through topical contact is great, supplementation schemes still focus on the ingestion of fluoride."
SOURCE: Adair SM. (1999). Overview of the history and current status of fluoride supplementation schedules. *Journal of Public Health Dentistry* 1999 59:252-8.

"The case is essentially a risk-benefit issue - fluoride has little preeruptive impact on caries prevention, but presents a clear risk of fluorosis."
SOURCE: Burt BA. (1999). The case for eliminating the use of dietary fluoride supplements for young children. *Journal of Public Health Dentistry* 59: 260-274.

"Until recently the major caries-inhibitory effect of fluoride was thought to be due to its incorporation in tooth mineral during the development of the tooth prior to eruption...There is now overwhelming evidence that the primary caries-preventive mechanisms of action of fluoride are post-eruptive through 'topical' effects for both children and adults."
SOURCE: Featherstone JDB. (1999) Prevention and Reversal of Dental Caries: Role of Low Level Fluoride. *Community Dentistry & Oral Epidemiology* 27: 31-40.

"[L]aboratory and epidemiologic research suggests that fluoride prevents dental caries predominately after eruption of the tooth into the mouth, and its actions primarily are topical for both adults and children."
SOURCE: Centers for Disease Control and Prevention. (1999). Achievements in Public Health, 1900-1999: Fluoridation of Drinking Water to Prevent Dental Caries. *Morbidity and Mortality Weekly Report* 48: 933-940.

"[R]esearchers are discovering that the topical effects of fluoride are likely to mask any benefits that ingesting fluoride might have... This has obvious implications for the use of systemic fluorides to prevent dental caries."
SOURCE: Limeback, H. (1999). A re-examination of the pre-eruptive and post-eruptive mechanism of the anti-caries effects of fluoride: is there any caries benefit from swallowing fluoride? *Community Dentistry and Oral Epidemiology* 27: 62-71.

"Although it was initially thought that the main mode of action of fluoride was through its incorporation into enamel, thereby reducing the solubility of the enamel, this pre-eruptive effect is likely to be minor. The evidence for a post-eruptive effect, particularly its role in inhibiting demineralization and promoting remineralization, is much stronger."
SOURCE: Locker D. (1999). Benefits and Risks of Water Fluoridation. An Update of the 1996 Federal-Provincial Sub-committee Report. Prepared for *Ontario Ministry of Health and Long Term Care.*

"Recent research on the mechanism of action of fluoride in reducing the prevalence of dental caries (tooth decay) in humans shows that fluoride acts topically (at the surface of the teeth) and that there is negligible benefit in ingesting it."
SOURCE: Diesendorf, M. et al. (1997). New Evidence on Fluoridation. *Australian and New Zealand Journal of Public Health* 21 : 187-190.

"On the basis of the belief that an adequate intake of fluoride in early life is protective against caries in later life, fluoride supplements are recommended for infants and children living in areas in which the fluoride content of the drinking water is low. However, critical reviews of the evidence have led to the conclusion that the effect of fluoride in decreasing the prevalence and severity of dental caries is not primarily systemic but exerted locally within the oral cavity. Because fluoride supplements are quickly cleared from the mouth, the possibility must be considered that they may contribute to enamel fluorosis, which is unquestionably a systemic effect, while providing relatively little protection against dental caries."
SOURCE: Ekstrand J, et al. (1994). Fluoride pharmacokinetics in infancy. *Pediatric Research* 35:157–163.

"It is now well-accepted that the primary anti-caries activity of fluoride is via topical action."
SOURCE: Zero DT, et al. (1992). Fluoride concentrations in plaque, whole saliva, and ductal saliva after application of home-use topical fluorides. *Journal of Dental Research* 71:1768-1775.

"I have argued in this paper that desirable effects of systemically administered fluoride are minimal or perhaps even absent altogether."
SOURCE: Leverett DH. (1991). Appropriate uses of systemic fluoride: considerations for the '90s. *Journal of Public Health Dentistry* 51: 42-7.

"It, therefore, becomes evident that a shift in thinking has taken place in terms of the mode of action of fluorides. Greater emphasis is now placed on topical rather than on systemic mechanisms..."
SOURCE: Wefel JS. (1990). Effects of fluoride on caries development and progression using intra-oral models. *Journal of Dental Research* 69(Spec No):626-33;

"[E]vidence has continued to accumulate to support the hypothesis that the anti-caries mechanism of fluoride is mainly a topical one."
SOURCE: Carlos JP. (1983) Comments on Fluoride. *Journal of Pedodontics* Winter. 135-136.

"Until recently most caries preventive programs using fluoride have aimed at incorporating fluoride into the dental enamel. The relative role of enamel fluoride in caries prevention is now increasingly questioned, and based on rat experiments and reevaluation of human clinical data, it appears to be of minor importance... [A]ny method which places particular emphasis on incorporation of bound fluoride into dental enamel during formation may be of limited importance."
SOURCE: Fejerskov O, Thylstrup A, Larsen MJ. (1981). Rational Use of Fluorides in Caries Prevention: A Concept based on Possible Cariostatic Mechanisms. *Acta Odontologica Scandinavica* 39: 241-249.

"It is estimated that 84% of the caries experience in the 5 to 17 year-old population involves tooth surfaces with pits and fissures. Although fluorides cannot be expected appreciably to reduce our incidence of caries on these surfaces, sealants can."
SOURCE: *Journal of the American Dental Association 1984;* 108:448.

"[E]namel surfaces with pits and fissures receive minimal caries protection from either systemic or topical fluoride agents."
SOURCE: Pinkham JR. (1999). *Pediatric Dentistry: Infancy Through Adolescence.* Third Edition. WB Saunders Co, Philadelphia.

"The type of caries now seen in British Columbia's children of 13 years of age, is mostly the pit and fissure type. Knudsen in 1940, suggested that 70 percent of the caries in children was in pits and fissures. Recent reports indicate that today, 83 percent of all caries in North American children is of this type. Pit and fissure cavities aren't considered to be preventable by fluorides, they are prevented by sealants."
SOURCE: Gray, AS. (1987). Fluoridation: Time for a New Base Line? *Journal of the Canadian Dental Association* 10: 763-765.

"The program focused on four caries-prevention techniques: sealants, a plastic-like coating applied to the chewing surfaces of back teeth and to pits and fissures on the sides of teeth (these surfaces are most prone to decay and ones which fluorides cannot protect adequately)."
SOURCE: Raloff J. (1984). Dental study upsets the accepted wisdom. *Science News*. 125(1): January 7.

It is estimated that 84% of the caries experience in the 5 to 17 year-old population involves tooth surfaces with pits and fissures. Although fluorides cannot be expected appreciably to reduce our incidence of caries on these surfaces, sealants can."
SOURCE: Scholle R. (1984). Editorial: Preserving the perfect tooth. *Journal of the American Dental Association.* 108:448.

Children attending centers showed no significant differences based on fluoride status for the total sample or other variables. Barnes GP, et al. (1992). Ethnicity, location, age, and fluoridation factors in baby bottle tooth decay and caries prevalence of Head Start children. *Public Health Reports* 107: 167-73.

#2. The Board claims fluoridation is **safe** and the Legislature is precise that the Board, not the public or cities, assure the public the water is safe**.** No Federal Authority has a single study on the safety of fluoride to the developing brain or other tissues, systems, cells or organs. The NRC 2006 report lists several risks.

REQUEST: Please provide the public and Washington State Cities with quality research in the Board's possession which persuades the Board that fluoridation is safe for the developing brain or any of the known risks.

#3. The Board claims fluoridation is **cost effective**.

REQUEST: Please provide the public and Washington State Cities with quality research that fluoridation is cost effective when treating known and undisputed adverse effects such as harm from cosmetic and functional dental fluorosis or lost wages from lower IQ are included.[4]

#4. The Board implies that even though the majority of children now show signs of too much fluoride ingestion (dental fluorosis) that children still need **more fluoride** by adding fluoride to public water.

REQUEST: Please provide the public and Washington State Cities a range of dosage which children are ingesting from all sources, total fluoride exposure, and a safe dosage of fluoride when risks are included.

#5. The **concentration of fluoride has been reduced** from 1.0 mg/L of fluoride in water to 0.7 mg/L of fluoride in water.

REQUEST: Please provide the public and Washington State Cities evidence, even observational evidence, that fluoride is allegedly still beneficial with a 30% reduction in concentration.

#6. The **tooth is highly resistant** to the migration of fluoride through the calcium rich tooth.

REQUEST: Please provide the public and Washington State Cities a mechanism of fluoride benefit. How does fluoride get from the blood through the tooth to where the caries are developing?

#7. Fluoride supplements and **other sources** of fluoride are easily obtained.

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[4] Osmunson B, Cole G, Community Water Fluoridation a Cost-Benefit-Risk Consideration, Public Health Challenges, November 7, 2024.

REQUEST: Please provide the public and Washington State Cities explanation of why these other sources of fluoride are not acceptable or inadequate?

#8. The EPA does not use any **margin of error or uncertainty factor or intraspecific variation**. : Not all humans are at a "statistical mean" in race, age, size, gender, diet, health, genetics or total toxic chemical burden of synergistic toxins.

REQUEST: Please provide the public and the Washington State Cities the margin of error or uncertainty factor or intraspecific variation the Board has selected for fluoride exposure?

#9. The Board should have evidence of the **purity of fluoride** added to public water.

REQUEST: Please provide the public and the Washington State Cities a copy of the batch assay reports, the purity, for fluoride added to water in Washington State over the last year?

#10. The CDC Division of Oral Health does not have evidence of fluoride's benefit for the fetus or infants.

REQUEST: Please provide the public and the Washington State Cities the evidence the Board has that fluoride is effective or safe for the fetus or infants?

#11. The U.S. District Court found *"It is undisputed that large numbers of susceptible individuals are being exposed each year to fluoride through fluoridation*. . . ." about 300,000 pregnant women each year, about **6,000 infants in Washington State**, are formula fed and their brains, teeth and all cells are at risk of harm.

REQUEST: Please provide the public and Washington State Cities with the Board of Health's determination of the acceptable number of children's brains which can be damaged with fluoridation based on the Boards determination of efficacy. And further, please include the acceptable risk for the other risks as listed by the NRC 2006 report (see below).

#12. Please provide peer reviewed published evidence that fluoridation is ethical when the known and probable risks are included.

Those are just a few questions the Board of Health must answer if they are going to assure safety of fluoridation.

The task of keeping up with science just on fluoridation is monumental and life-long. However, failure to protect the public is a catastrophe and could be considered a criminal act. Of context, remember a doctor's mistake is malpractice and can harm the patient or they may die. A Public Health mistake like fluoridation can harm and is harming millions.

Public health credibility is also at stake and as science changes our understanding and policy must also adapt. In our Addendum A submission, we provided slides from the NTP and they are slightly distorted (sent to me that way by the author), sorry for the poor copy. The NTP has since published the webinar which has audio along with the slides. The webinar is

shorter than the published Monograph National Toxicology Program report. The meta-analysis is yet to be published. **The Webinar: https://www.healthandenvironment.org/che-webinars/96797** Fluoride, Neurodevelopment, and Cognition: A National Toxicology Program Monograph from December 3, 2024 is critical to watch and consider.

1. **Fluoridation is not cost effective** regardless of all published claims. . . if harm to teeth and brains with just lost wages are included. **Public Health Challenges** https://doi.org/10.1002/puh2.70009
2. **The Nuffield Council on Bioethics**: *"The acceptability of any public health policy involving the water supply should be considered in relation to:*
   (i) the balance of risks and benefits;
   (ii) the potential for alternatives that rank lower on the intervention ladder to achieve the same outcome; and
   (iii) the role of consent where there are potential harms [para 7.26]."

   Fluoridation fails on all three points.

   (i) Potential harms are reported by the National Research Council in 2006 to such structures and physiologic functions as cells, teeth, skeleton, chondrocyte metabolism, arthritis, reproductive and developmental effects, neurotoxicity, neurobehavioral effects, endocrine system, gastrointestinal, renal, hepatic, immune systems, genotoxicity, carcinogenicity, and more recently concerns of potential low birth weight, miscarriage, and increased infant mortality have been raised. Safety should be assured by authorities rather than patients required to prove that they are being harmed. Randomized controlled trials, required for FDA CDER approval, safety, dosage, label and individual consent are lacking. Control of the amount of water consumption is not controlled and thus dosage is uncontrolled. Good Manufacturing Practices for Pharmaceuticals are violated.

   (ii) Alternatives which are safer include prescriptions from health care providers which control for dosage, consent, and purity. Even swallowing a pea size of toothpaste is an alternative, although the FDA advises not to swallow toothpaste. In addition, avoiding organic foods, don't wash produce, eat/drink foods high in fluoride such as black tea, wine, grape juice, mechanically deboned meat, and/or foods with fluoride post-harvest fumigant will all, and many others, cause excess fluoride exposure for many.

   (iii) Alternatives provide for consent and water fluoridation violates individual consent in the face of known harm, dental fluorosis and other risks.

   We highly disagree with the Nuffield report which suggests a vote by one's neighbors may make it ethical. Turning over decisions of pharmacology to one's neighbors is not ethical. Pontius Pilot tried washing his hands of the crime. Industry with money can market their products and gain a majority vote. Prescription drugs, including fluoride, must not be prescribed based on a popular vote.

3. **A University of Washington professor,** Dr. Charlotte Lewis, is (was) an avid promoter of historical fluoride evidence. The Board should keep in mind, in an attempt to protect fluoridation, some promoters of fluoridation have rather extreme views of both teeth and brains. In sworn deposition, Dr. Lewis testified:

Q. At this point in time, you are not prepared to say that you would withdraw your support of water fluoridation even if the evidence convinced you that it's reducing the IQ by five points in 5 to 10 percent of the population? You still would support water fluoridation at that time?

A. Well, again, because that's not the scope of what I was asked to look at, it's difficult for me to answer the question, but there are circumstances where I can imagine that that would be an appropriate trade-off.

Q. Okay. You're saying there are circumstances where I can imagine. I'm asking you based on those facts I've given you, would you or would you not withdraw your support for water fluoridation?

A. I would not withdraw my support of community water fluoridation.

AAP Spokesperson Sees IQ Loss As An Acceptable "Trade Off" For Fluoridation - Fluoride Action Network

Someone who is willing to trade IQ for ingesting excess sugar and failure to practice good oral hygiene is extremely and carelessly biased. There is no known fluoride deficiency disease. The absence of fluoride in the diet does not cause dental caries. Even if a fluoride deficiency existed, dentists can fix dental caries but not IQ loss and other developmental harm from fluoride is serious. Front matter | Fluoride in Drinking Water: A Scientific Review of EPA's Standards | The National Academies Press And excess sugar contributes to other diseases.

However, as a dentist who treated many children in the office and took some to the hospital, I am on Dr. Lewis's side with concern for the pain and suffering children can have in their mouths. Pediatricians can prescribe drugs and pull teeth, but the doctor suffers along with the patient and parents. However, fluoridation is not the answer even if fluoridation mitigates dental caries at the highest alleged benefit because brains are more important than teeth.

The sugar lobby has created the narrative that dental caries are the problem. Not so fast. The etiology (cause) for dental caries is primarily sugar, poor diet and lack of hygiene which contribute to dental caries, pain, and harm and dental caries are a sign of a bad diet and lack of hygiene. I love sugar. I'm addicted to sugar. It pains me to find fault with my bad habits.

Let’s be honest and blame sugar/diet and hygiene rather than a symptom of our bad habits. For example, we in public health can blame a person’s lung cancer for their death, but the blame should be focused on the person’s exposure to tobacco use, asbestos and pesticide exposures and other causes and contributing factors for the cancer rather than a symptom. The etiology of the pathology needs to be blamed for the disease, not a mythical, assumed, alleged, lack of an unapproved highly toxic chemical exposure.

4. Please consider additional streams of evidence at https://www.youtube.com/watch?v=d7DA02SNd5M
5. Even 0.7 ppm fluoride in water, the alleged optimal fluoride concentration in water, can harm the developing brain. Maternal Urinary Fluoride and Child Neurobehavior at Age 36 Months - PubMed Current science is overwhelmingly consistent, fluoride is harmful and alleged evidence of assumed efficacy is “incomplete.”
6. The former head of the NTP (National Toxicology Program Office of Health Assessment and Translation) made a presentation: VIDEO: Former NTP Director’s Statement on Fluoride Neurotoxicity - Fluoride Action Network
7. I was one of those who nominated fluoride's developmental neurotoxicity to the NTP for review in 2015 because the Washington State Board of Health in numerous petitions for rule change over 5 years had refused to protect the public health. 10 years later and the final second part of the report has still NOT been published. However, the draft meta-analysis is a crushing blow to fluoridation. HHS delayed and blocked release until the Court ordered the release. Why? Why did HHS block release if the release was not toxic to the policy? You can see reasons and more court history here: National Toxicology Program (NTP) Report - Fluoride Action Network

National Toxicology Program (NTP) Report - Fluoride Action Network

NTP’s Involvement in Fluoride Neurotoxicity. In 2015 the NTP solicited a request for information in the Federal Register on fluoride’s carcinogenicity, developmental neurotoxicity, and endocrine disruption. FAN submitted comments and the NTP made the decision to investigate fluoride’s neurotoxicity.. In December 2015 an “Evaluation of Fluoride Exposure and Potential for Developmental ...

fluoridealert.org

Note: the NTP report with Moderate Confidence is based on published research up to May 1, 2020, where NTP determined 18 of 19 high quality studies (and many lower quality studies) reported neurodevelopmental harm.

Subsequent to that report and between 2020, and up to 2023, NTP has an addendum reporting an additional 12 of 12 high quality studies reporting harm. Note, the Malin 2024 (link above) report is not included in the 12 of 12. The NTP is only considering one of many risks. The NTP took 10 years with the most thorough peer reviews by the fluoridation lobby and the recommendations were not about the conclusion but on clarity. At this rate, it will take centuries to carefully review all the risks of fluoride. We must now act.

8. Federal Court Rules That Water Fluoridation Poses an "Unreasonable Risk" to Children - Fluoride Action Network The Court has been highly scientific with their determination. Public funded research blocked by HHS should not take thousands of dollars in court and lawyer fees and require a court order for release. The public loses trust in authorities, especially my public health profession, when HHS public health authorities or the Board obstruct and block and manipulate science or refuse to protect the public.
   The Court found that*, "It is undisputed that large numbers of susceptible individuals are being exposed each year to fluoride through fluoridation, namely, approximately two million pregnant women, and over 300,000 exclusively formula-fed babies."*

   Washington state has about 2% of pregnant women in the USA or about 6,000 exclusively formula-fed babies, a disproportionate number are in the low socioeconomic population of moms who need to work. And most babies have both formula and mother's milk during part of their development which would also be of risk. The Court is referring to a baby after it is born.

   Before the baby is born, 100% of fetuses are affected by mothers drinking fluoridated water.

   And further, the fetus needs calcium and the baby pulls calcium out of the mother, especially during the final trimester. As the bones resorb to give the fetus calcium, fluoride is also given off from the bones and enters the fetus. Thus, girls and women who may become pregnant, (all girls and women) would be best not to drink fluoridated water at least 20 years prior to pregnancy.
9. The National research Council 2006, report for the EPA Front matter | Fluoride in Drinking Water: A Scientific Review of EPA's Standards | The National Academies Press is one of the best sources on risks from fluoride exposure and to date is still the best source on total fluoride exposure and the variation of individual fluoride exposure. Remember that not everyone drinks the same amount of water. For example, recommendation of 10 glasses of water per day for pregnant women is over 2 liters of water which has similar dosage as one liter of water at 1.5 mg/L, which the NTP report had moderate confidence of harm.

10. The past Director of the CDC's Division of Oral Health testified in sworn deposition that fluoride supplements do not benefit the fetus or infants when given to pregnant mothers.

Consider CDC Division of Oral Health does not have evidence of benefit at the same time of development the fetus is at risk of brain damage (NTP and Court.) and other cells, systems, tissues, and organs (NRC 2006).

No or little known benefit, only known risk from swallowing fluoride.

Neither the National Toxicology Program, Centers for Disease Control, the Environmental Protection Agency, the Food and Drug Administration nor the three largest fluoride manufacturers in sworn testimony under oath could provide a single study, just one study, on the safety of fluoride ingestion to the developing brain. I have not found any study in the thousands of pages received from the Board of Health under FOI request which reported safety of fluoride ingestion to the developing brain. Plenty of endorsements and observational claims, no science.

We have only touched on each stream of evidence and there is much, much more.

Bill Osmunson DDS MPH

Washington Action for Safe Water

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[i] CDC (1999). Achievements in Public Health, 1900-1999: Fluoridation of Drinking Water to Prevent Dental Caries. MMWR, 48(41); 933-940, October 22
[ii] http://www.cdc.gov/fluoridation/ Accessed 9/26/10 CDC does not determine the safety or efficacy of fluoridation.
[iii] CDC (1999). Achievements in Public Health, 1900-1999: Fluoridation of Drinking Water to Prevent Dental Caries. MMWR, 48(41); 933-940, October 22.
[iv] Chemical and Engineering News, May 8, 1989, Vol 57, Number 19.
[v] ARNOˇST KOMA´ REK∗, EMMANUEL LESAFFRE Biostatistics (2005), 6, 1, pp. 145–155
doi: 10.1093/biostatistics/kxh023

From: DOH WSBOH
Sent: 12/24/2024 10:41:30 AM
To: Davis, Michelle (SBOH),Bauman, Shay (SBOH),Noble, Ashley A (SBOH)
Subject: Fw: [EXTERNAL] Re: FDA Patient Webform Request - Teaching Smiles (Bill Osmunson)

attachments\0A118998929949C6_image001.png

From: bill teachingsmiles.com <bill@teachingsmiles.com>
Sent: Thursday, December 12, 2024 12:20 PM
To: CDERPASE <CDERPASE@fda.hhs.gov>; mmakary1@jhmi.edu <mmakary1@jhmi.edu>; Michael Connett <mconnett@gmail.com>; Stuart Cooper <stuart@fluoridealert.org>; john william hirzy <jwhirzy@gmail.com>; Hardy Limeback <hardy.limeback@gmail.com>; Ellen C <ellen@fluoridealert.org>; Linda Birnbaum <birnbaum.tox@outlook.com>; David Kennedy <davidkennedydds@gmail.com>; Griffin Cole <griffincole@yahoo.com>; Team Kennedy <info@teamkennedy.com>; DOH WSBOH <WSBOH@SBOH.WA.GOV>; Gerald Steel <geraldsteel@yahoo.com>; Chris Nidel <chris@nidellaw.com>; audrey55 <audrey55@comcast.net>; Paul Connett <pconnett@gmail.com>
Cc: CDER DRUG INFO <DRUGINFO@fda.hhs.gov>
Subject: Re: [EXTERNAL] Re: FDA Patient Webform Request - Teaching Smiles (Bill Osmunson)

External Email

Dear PASE Staff, HHS/FDA/CDER/OCOMM, Dr. Makary, Washington State Board of Health, and All,

Is it the official position of HHS/FDA/CDER that the FD&C Act exempts the FDA CDER from regulatory oversight of drugs when diluted in public water? You have denied to even listen to science, laws and ethics (see your email below).

For example, according to the FDA CDER denial of jurisdiction, should a drug manufacturer decide to manufacture a new or existing drug, a simple dilution in tap water exempts the drug from the FD&C Act, FDA CDR NDA, Good Manufacturing Practices for Pharmaceuticals, label, dosage, or adequate research on efficacy and safety.

I, as a dentist, have made millions of dollars both selling fluoride and now I realize I was also treating fluoride cosmetic and functional harm. The fluoridation lobby is biased.

We should agree, fluoride marketed with intent to prevent disease is a drug. 21 USC 321(g)(1)(B).

1.

FDA testified to Congress that fluoride is a drug. Congressional Investigation 2001.
2.

Sodium fluoride is listed in the U.S. Pharmacopeia, etc.

3. The fluoride toothpaste label is clearly labeled, Drug Facts.

4. The Washington State Board determined fluoride is a legend drug.

5. The FDA notified 35 companies "there is no substantial evidence of drug effectiveness as prescribed, recommended or suggested in its labeling. . . Marketing is in violation of the new drug provisions of the Federal Food, Drug, and Cosmetic Act; they have, therefore, requested that marketing of these products be discontinued." Drug Therapy 1975.

6. Fluoride is not added to reduce water contamination. Fluoride is not a nutrient.

EPA: The Safe Drinking Water Act (SDWA) is precise that the SDWA prohibits the EPA from regulating drugs added to tap water.
42 USC 300g-1(b)(11) "No national primary drinking water regulation may require the addition of any substance for preventive health care purposes unrelated to contamination of drinking water."

In an FOIA response, (HQ-FOI-01418-10) the EPA responded, "The Safe Drinking Water Act prohibits the deliberate addition of any substance to drinking water for health-related purposes other than disinfection of the water."

Steve Neugeboren, Ass. General Counsel, Water Law Office of the EPA, 2/14/2013, responded, "The FDA, remains responsible for regulating the addition of drugs to the water supply for health care purposes."

The FDA points the jurisdictional finger at the EPA, and EPA at the FDA. Hundreds of millions of Americans are harmed.

The HHS, FDA, CDERPASE confirms in their email below, you have repeatedly over the years refused to even listen to the evidence and failed to protect the public.

My request is that you reconsider your denial of a Listening Session and give us time to provide scientific, legal, and ethical evidence. Please advise where we can make an appeal if necessary.

Refusing to listen is a form of censorship.

Sincerely,

Bill Osmunson DDS MPH
Washington Action for Safe Water

From: CDERPASE <CDERPASE@fda.hhs.gov>
Sent: Wednesday, December 11, 2024 9:29 AM
To: bill teachingsmiles.com <bill@teachingsmiles.com>
Cc: CDERPASE <CDERPASE@fda.hhs.gov>
Subject: RE: [EXTERNAL] Re: FDA Patient Webform Request - Teaching Smiles (Bill Osmunson)

Hello Mr. Osmunson,

Thank you for the additional information. As we have consistently stated publicly and through correspondence over the years, the EPA, not FDA, has the authority to regulate the use of fluoride compounds in public drinking water. You can find that information on our website (https://www.fda.gov/drugs/frequently-asked-questions-popular-topics/does-fda-regulate-fluoride-drinking-water <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.fda.gov%2Fdrugs%2Ffreque
asked-questions-popular-topics%2Fdoes-fda-regulate-fluoride-drinking-water&data=05%7C02%7CShay.Bauman%40sboh.wa.gov%7Cf4fcb338ddf44cfb718c08dd244a9413%7C11
). We also refer to your state and local governments as the entities that decide on water fluoridation.

For these reasons, we are declining your request for a Listening Session.

Should you have further questions related to human drug products or other areas within our jurisdiction, please don’t hesitate to reach out.

PASE Staff, CDER/OCOMM

From: bill teachingsmiles.com <bill@teachingsmiles.com>
Sent: Monday, November 25, 2024 1:57 PM
To: CDERPASE <CDERPASE@fda.hhs.gov>
Cc: Michael Connett <mconnett@gmail.com>; Rick North <hrnorth@hevanet.com>; cc Reed <cici.reed1@gmail.com>; Derek Kemppainen <derekkempp@gmail.com>; Carol S. Kopf <ckopf2@optonline.net>; Ellen C <ellen@fluoridealert.org>; Doug Cragoe <cragoe@sbcglobal.net>; Jack Crowther <jack_cr3@yahoo.com>; Neil Carman <neil_carman@greenbuilder.com>; Carol Goodwin Blick <cgb@blicklabs.com>; Moms Against Fluoridation <momsagainstfluoridation@gmail.com>; Ellen C <ellen@fluoridealert.org>; Bob Runnells <wa.bob.runnells@childrenshealthdefense.org>; Hardy Limeback <hardy.limeback@gmail.com>; Stuart Cooper <stuart@fluoridealert.org>; Chris Nidel <chris@nidellaw.com>; John Mueller <jfmjr66@gmail.com>; Dawn Ewing <drdawn@drdawn.net>; dawnagal19@gmail.com; Mike Ewall <mike@energyjustice.net>; Paul Connett <pconnett@gmail.com>; Gilles Parent <gilles.parent@bellnet.ca>; David Kennedy <davidkennedydds@gmail.com>; Griffin Cole <griffincole@yahoo.com>; Jay Sanders <jay@fluoridealert.org>; audrey55

<audrey55@comcast.net>; Chris Neurath <cneurath@AmericanHealthStudies.org>
Subject: Re: [EXTERNAL] Re: FDA Patient Webform Request - Teaching Smiles (Bill Osmunson)

Dear CDERPASE Staff,

Thank you for your quick response. Millions are being harmed and our intent is to stop the harm and protect the public health.

Response to your two questions.

#1. You asked, " kindly provide additional details about your organization, Teaching Smiles? Specifically, it would be helpful to know more about the organization's mission, activities, and scope of work."

Teaching smiles was an organization to teach neuromuscular, temporomandibular disorders, cosmetic dentistry and I continue to use the email address. Cosmetic dentistry morphed into toxicology and joining with the American Environmental Health Studies Project and Fluoride Action Network along with the International Academy of Oral Medicine and Toxicology, Washington Safe Water, Mom's Against Fluoridation, Food and Water Watch, the Surgeon General of Florida, RF Kennedy Jr. and you can find a list of professionals opposed to fluoridation.

Our activities involve persuading authorities to read and follow science, laws and ethics to protect the public health.

Fluoridealert.org
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsecure-web.cisco.com%2F1foDydyCtvPuBte657WdKRBe0WWpx8mJ0m-7I-7J6Sod0PVQcq2DehK_h7C4KtFZt3YBPNrwCQDIAo3JrGld-d3C5lYJ_ByxWgpDIaPq-dXa3N-jTfx5Hi8GFoOEKw7hPeivAu1mUN2tHRx4pynKnLKM-wlAp8cRyaIs51Mb4YBwtXGVbNlT3fhvDm-mcstMb694DJJSPGpd9M-kfhrUFPVlkioCFgg_fdzkq4af10L4%2Fhttps%253A%252F%252Ffluoridealert.org&data=05%7C02%7CShay.
who's website is being upgraded, and iaomt.org mission is at https://iaomt.org/about-iaomt/ <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsecure-web.cisco.com%2F109J8OJPHV5pyVKJBLDjh2nlrFzdz2olnCFYsEv0Kmlo4n2Ct1B28pm82mSviP1p2c0YPJljJZy
YLWXF5bGfpbXG4DkfbrCyjANHoxCStknvXe6AmbdBI%2Fhttps%253A%252F%252Fiaomt.org%252Fabout-iaomt%252F&data=05%7C02%7CShay.Bauman%40sboh.wa.gov%7Cf4fcb338ddf44cfb718c08dd244a9413

In brief, we are science based and focused on the harm contributed and caused by excess fluoride and mercury exposures and we encourage safer and better dental treatments.

I made a ppt with audio which will provide additional information for you
https://www.youtube.com/watch?v=d7DA02SNd5M
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv

#2. To your question: "Additionally, we would appreciate further clarification regarding the FDA-regulated products you would like to discuss in relation to the concerns mentioned in your meeting topic and goal."

Drugs diluted in public water.

Are drugs diluted in tap water exempt from FDA CDER NDA?

Your question can have at least two directions.

A.□□□□□Our focus is partly on the inappropriate regulation of FDA-products; however,

B.□□□□□Our primary focus is on the total lack of regulating products the FDA is required by Congress to regulate of which the FDA CDER has failed to regulate which are causing and contributing to serious public harm.

For example, the FDA CDER has in the past suggested that FDA CDER does not regulate public water, which is the jurisdiction of the EPA under the Safe Drinking Water Act (SDWA).

And, the SDWA prohibits the EPA from adding anything to public water with intent to prevent disease in humans. EPA does not regulate the addition of drugs to tap water, EPA is prohibited.

Therefore, it appears in the view of the FDA CDER that Congress specifically left one avenue of drug manufacturing without any regulatory oversight.

If a drug manufacturer were to simply add a drop of water to their vat with or without chemicals, regardless of toxicity, purity, label, dosage, concentration, efficacy or GMP, and calls the drug a miracle drug which will treat, prevent, or cure Alzheimer disease or MS or any other disease; the drop of tap water exempts the drug from any FDA or EPA oversight. In our opinion, that is not Congress's intent. However, that is the regulatory loophole fluoridation is in.

FDA testified to Congress, fluoride is a drug.

The U.S. Pharmacopeia lists sodium fluoride as a drug.

The intent of use to prevent dental caries, a disease, places fluoride as a drug.

When the Washington State Board of Health called the FDA CDER to inquire about gaining FDA CDER approval for the fluoridation drug, the FDA CDER reportedly said if application is attempted, fluoridation would be banned. That does not sound like approval, safety, or lack of jurisdiction.

If, by some twist of imagination and speculation or point of discussion, fluoride is not a drug regulated under drug laws, then it is a poison and cities should be informed they are poisoning the public. Yet we know fluoride is a drug simply by reading the fluoride toothpaste label.

Our intent in this listening process is to protect the health of the public. Protection of the public health is our first and only mission.

Can we work together to improve the health of the public?

We do appreciate you providing us with time to review our concerns and willingness to take regulatory action. A simple letter to the state departments/boards of health informing them that the ingestion of fluoride diluted in water is not approved and for them to notify their water districts and cities to suspend, cease, manufacturing until FDA CDER NDA is approved.

Once again, the video I made for you will explain in greater detail.

Sincerely,

Bill Osmunson DDS MPH

425.466.0100

bill@teachingsmiles.com <mailto:bill@teachingsmiles.com>

We are not into conspiracies . . . we are into "follow the science and money."

From: CDERPASE <CDERPASE@fda.hhs.gov <mailto:CDERPASE@fda.hhs.gov> >
Sent: Monday, November 25, 2024 7:26 AM
To: bill teachingsmiles.com <bill@teachingsmiles.com <mailto:bill@teachingsmiles.com> >
Cc: CDERPASE <CDERPASE@fda.hhs.gov <mailto:CDERPASE@fda.hhs.gov> >
Subject: RE: [EXTERNAL] Re: FDA Patient Webform Request - Teaching Smiles (Bill Osmunson)

Hello Bill,

Thank you for reaching out to our office with your meeting request and for sharing detailed information on the topic of fluoride and its potential effects. We appreciate your interest in engaging with us on this important issue.

To help us better understand your request and consider next steps, could you kindly provide additional details about your organization, Teaching Smiles? Specifically, it would be helpful to know more about the organization’s mission, activities, and scope of work.

Additionally, we would appreciate further clarification regarding the FDA-regulated products you would like to discuss in relation to the concerns mentioned in your meeting topic and goal.

Your assistance in providing this information will help ensure we have a clear understanding of your request. Please feel free to reach out with any questions or if additional context is needed.

We appreciate your time and effort in providing this information, and we look forward to your response.

PASE Staff, CDER/OCOMM

From: bill teachingsmiles.com <bill@teachingsmiles.com <mailto:bill@teachingsmiles.com> >
Sent: Sunday, November 24, 2024 4:53 PM
To: CDERPASE <CDERPASE@fda.hhs.gov <mailto:CDERPASE@fda.hhs.gov> >
Subject: [EXTERNAL] Re: FDA Patient Webform Request - Teaching Smiles (Bill Osmunson)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear CDERPASE,

Perhaps I missed your email and response.

I am requesting a meeting, see below.

Thank you,

Bill Osmunson DDS, MPH

From: CDERPASE <CDERPASE@fda.hhs.gov <mailto:CDERPASE@fda.hhs.gov> >
Sent: Wednesday, November 20, 2024 5:06 AM
To: bill teachingsmiles.com <bill@teachingsmiles.com <mailto:bill@teachingsmiles.com> >
Cc: CDERPASE <CDERPASE@fda.hhs.gov <mailto:CDERPASE@fda.hhs.gov> >
Subject: FW: FDA Patient Webform Request - Teaching Smiles (Bill Osmunson)

Hello Bill,

Your meeting request has been forwarded to the Professional Affairs and Stakeholder Engagement (PASE) Staff within the FDA’s Center for Drug Evaluation and Research (CDER). We acknowledge receipt of your inquiry, and our team is currently reviewing it.

A member of our team will follow up with you shortly. Please don’t hesitate to reach out if you have any additional questions in the meantime.

PASE Staff, CDER/OCOMM

From: Webform@fda.gov <mailto:Webform@fda.gov> <Webform@fda.gov <mailto:Webform@fda.gov> >
Sent: Tuesday, November 19, 2024 2:42 PM
To: ForPatients <ForPatients@fda.hhs.gov <mailto:ForPatients@fda.hhs.gov> >
Subject: FDA Patient Webform Request

Dear Sir or Madam,

Request By: Bill Osmunson

Requestor Email Address: Bill@teachingsmiles.com <mailto:Bill@teachingsmiles.com>

Requestor Phone: 4254660100

Please tell us who you are (*):

Response: Health Professional

Name of Group (if applicable):

Group's website link (if applicable):

Brief description of group or group's mission statement (if applicable):

Other (if applicable):

Question or Meeting Request: Meeting

Is Request about a Specific FDA Program: Yes

What is your request about:

- Vaccines, Blood & Biologics :
- Drug: Yes
- Medical Device:
- Disease or Health Condition :
- Multiple or Unknown :

Select an FDA program, if applicable

Multi-Product Programs:

- Patient Engagement Collaborative (PEC): Yes

Name of Disease or Condition (if applicable):
Developmental Neurotoxicity, developing brain damage, dental fluorosis, and potential harms are reported by the National Research Council in 2006 to such structures and physiologic functions as cell function, teeth, skeleton, chondrocyte metabolism, arthritis,

reproduc-tive and developmental effects, neurotoxicity, neurobehavioral effects, endocrine system, gastroin-testinal, renal, hepatic, immune systems, genotoxicity, carcinogenicity, and more recently concerns of potential low birth weight, miscarriage, and increased infant mortality have been raised.

Meeting Topic:
Harm from the over-exposure, lack of label, lack of dosage control, misbranded, adulterated, contaminated, illegal drug fluoride and FDA CDER's deferring of regulatory action.

Meeting Goal:
Requesting Regulatory Action on fluoride and fluoridation marketed and manufactured with intent to prevent dental caries.

***If a question or meeting request is sent to an incorrect mailbox and the correct point of contact is unknown, it should be sent to PatientAffairs@FDA.HHS.gov <mailto:PatientAffairs@FDA.HHS.gov> . Please add "5714" to the end of the subject line before sending the email.

***For questions or meeting requests that are incorrectly auto-routed where the correct POC is known, PatientAffairs@FDA.HHS.gov <mailto:PatientAffairs@FDA.HHS.gov> should be cc'd in the process of identifying the correct POC for tracking purposes. Please add "5714" to the end of the subject line before sending the email.

WASHINGTON STATE BOARD OF HEALTH

Working for a safer and healthier Washington since 1889

Recommended Strategies to Improve the Oral Health of Washington Residents

Goals:

- To promote strategies which are consistent with *Healthy People 2020* in order to improve the oral health of Washington residents
- To reduce oral health disparities among Washington residents
- To guide Washington State Board of Health (SBOH) rule and policy development activity
- To provide leadership on public health policies that focus on oral health promotion, prevention, early intervention, and treatment

The following strategic recommendations are based on a review of established evidence and best practice models, consultation with expert informants, input from Washington state and National expert oral health review panels. The recommendations are not intended to be a comprehensive list of available strategies, but should be considered by communities, organizations, and agencies seeking to promote oral health in the State of Washington. Special consideration was given to oral health strategies that are evidence based, cost effective, and impact high risk populations. These seven important strategies taken together will significantly improve the oral health of Washington residents.

State Board of Health Strategic Recommendations

Health Systems: Support policies and programs that improve oral health for Washington state residents.

- Maintain and build on effective programs, like Access to Baby and Child Dentistry, University of Washington Regional Initiatives in Dental Education (RIDE), and adult Medicaid coverage
- Examine cost-effective measures to strengthen Washington's dental public health infrastructure
- Explore cost containment measures to reduce inefficient oral health costs – for example decrease unnecessary emergency room use for dental issues
- Evaluate incentives for healthcare providers who provide services to low income adults and special populations, including diabetics and pregnant women
- Support dedicated staffing to lead a statewide oral health coalition and measure the impact of oral health programs

Community Water Fluoridation: Expand and maintain access to community water fluoridation for the health benefit of children, adults, and seniors.

- Support communities that currently provide optimal levels of fluoride to their residents and those seeking to adopt community water fluoridation.
- Support efforts to educate and inform Washington state residents about the importance of fluoridation to improve community health.

- Engage with organizations, agencies and coalitions to promote community water fluoridation in Washington state

Sealant Programs: Provide school-age children with access to dental sealants to prevent cavities.

- Promote school based sealant programs aligned with the Centers for Disease Control's expert work group recommendations for school-based sealant programs

Interprofessional Collaboration: Incorporate oral health improvement strategies across healthcare professions (such as medicine, nursing, social work, and pharmacy) and systems to improve oral health knowledge and patient care.

- Encourage the State of Washington's healthcare systems and providers to incorporate oral health into their practices
- Encourage health focused educational institutions to incorporate and maintain oral health in their curricula
- Explore innovative collaborative approaches to improve interprofessional delivery of oral health services - for example explore oral health models used by other states
- Support strategies that focus on high risk groups like pregnant women, children, seniors, and those with exacerbating chronic conditions like diabetes or HIV/AIDS

Oral Health Literacy: Improve the capacity of people to obtain, understand, and use health information in order to increase their acceptance and adoption of effective oral health focused preventive practices.

- Encourage collaboration to provide consistent and culturally relevant oral health messaging in settings with at-risk populations: perinatal, senior centers, and early learning (such as Head Start, child care, and home visiting programs; and Women, Infants, and Children Food and Nutrition Services)
- Collaborate with diverse organizations to promote oral health - for example, engage with the Office of Drinking Water, community based anti-obesity efforts, and private enterprise in order to promote healthy behaviors like drinking water, healthy eating habits, reducing tobacco use, and preventing mouth injuries

Surveillance: Monitor trends in oral health indicators to ensure policies and programs are advancing the oral health of Washington residents, including those most at risk for poor oral health outcomes.

- Maintain the Washington State Smile Survey to monitor the oral health of preschool, kindergarten, and elementary school-age children; and the Washington State Oral Disease Burden Document to monitor the oral health of all residents
- Implement oral health surveillance systems for vulnerable populations, including patients enrolled in Medicaid or State Children's Health Insurance Program, homeless, and elders.
- Utilize surveillance tools, including BRFSS, PRAMS, and Cancer Registry among others, to design and track measurable goals and objectives toward improving oral health among Washington residents

Work Force: Develop health professional policies and programs which better serve the dental needs of underserved populations.

- Develop programs to mentor, recruit and train students of color in the dental professions.
- Investigate options to serve rural and underserved communities - for example expanding the University of Washington Dental RIDE program and increasing the number of community health centers
- Research the best ways to recruit and develop a workforce to provide care for the dental underserved regions in our state - for example partnerships with academic institutions, and new strategies to recruit and retain dental professionals
- Support policies for the exploration and feasibility of new and emerging evidence based dental workforce models to increase access to and efficiency of dental treatment.

WAC 246-290-220 Drinking water materials and additives. (1) All materials shall conform to the ANSI/NSF Standard 61 if in substantial contact with potable water supplies. For the purposes of this section, "substantial contact" means the elevated degree that a material in contact with water may release leachable contaminants into the water such that levels of these contaminants may be unacceptable with respect to either public health or aesthetic concerns. It should take into consideration the total material/water interface area of exposure, volume of water exposed, length of time water is in contact with the material, and level of public health risk. Examples of water system components that would be considered to be in "substantial contact" with drinking water are filter media, storage tank interiors or liners, distribution piping, membranes, exchange or adsorption media, or other similar components that would have high potential for contacting the water. Materials associated with components such as valves, pipe fittings, debris screens, gaskets, or similar appurtenances would not be considered to be in substantial contact.

(2) Materials or additives in use prior to the effective date of these regulations that have not been listed under ANSI/NSF Standard 60 or 61 may be used for their current applications until the materials are scheduled for replacement, or that stocks of existing additives are depleted and scheduled for reorder.

(3) Any treatment chemicals, with the exception of commercially retailed hypochlorite compounds such as unscented Clorox, Purex, etc., added to water intended for potable use must comply with ANSI/NSF Standard 60. The maximum application dosage recommendation for the product certified by the ANSI/NSF Standard 60 shall not be exceeded in practice.

(4) Any products used to coat, line, seal, patch water contact surfaces or that have substantial water contact within the collection, treatment, or distribution systems must comply with the appropriate ANSI/NSF Standard 60 or 61. Application of these products must comply with recommendations contained in the product certification.

(5) The department may accept continued use of, and proposals involving, certain noncertified chemicals or materials on a case-by-case basis, if all of the following criteria are met:

(a) The chemical or material has an acknowledged and demonstrable history of use in the state for drinking water applications;

(b) There exists no substantial evidence that the use of the chemical or material has caused consumers to register complaints about aesthetic issues, or health related concerns, that could be associated with leachable residues from the material; and

(c) The chemical or material has undergone testing through a protocol acceptable to the department and has been found to not contribute leachable compounds into drinking water at levels that would be of public health concern.

(6) Any pipe, pipe fittings, plumbing fittings, fixtures, solder, or flux used in the installation or repair of a public water system shall be lead-free:

(a) This prohibition shall not apply to leaded joints necessary for the repair of cast iron pipes; and

(b) Within the context of this section, lead-free shall mean:

(i) No more than a weighted average of twenty-five one-hundredths of one percent lead, calculated in accordance with 42 U.S.C. 300g-6 654(d)(2); and

(ii) No more than two-tenths of one percent lead in solder and flux.

(7) Exceptions to the lead-free requirements of subsection (6) of this section include:

(a) Pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or

(b) Toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, fire hydrants, shower valves, service saddles, or water distribution main gate valves that are two inches in diameter or larger.

[Statutory Authority: RCW 43.20.050 and 70.119A.080. WSR 17-01-062, § 246-290-220, filed 12/14/16, effective 1/14/17. Statutory Authority: RCW 43.20.050 (2) and (3) and 70.119A.080. WSR 03-08-037, § 246-290-220, filed 3/27/03, effective 4/27/03. Statutory Authority: RCW 43.02.050 [43.20.050]. WSR 99-07-021, § 246-290-220, filed 3/9/99, effective 4/9/99. Statutory Authority: RCW 43.20.050. WSR 91-02-051 (Order 124B), recodified as § 246-290-220, filed 12/27/90, effective 1/31/91. Statutory Authority: RCW 34.04.045. WSR 88-05-057 (Order 307), § 248-54-131, filed 2/17/88.]

Petition for Rulemaking

WAC 246-290-220, Drinking Water Materials and Additives

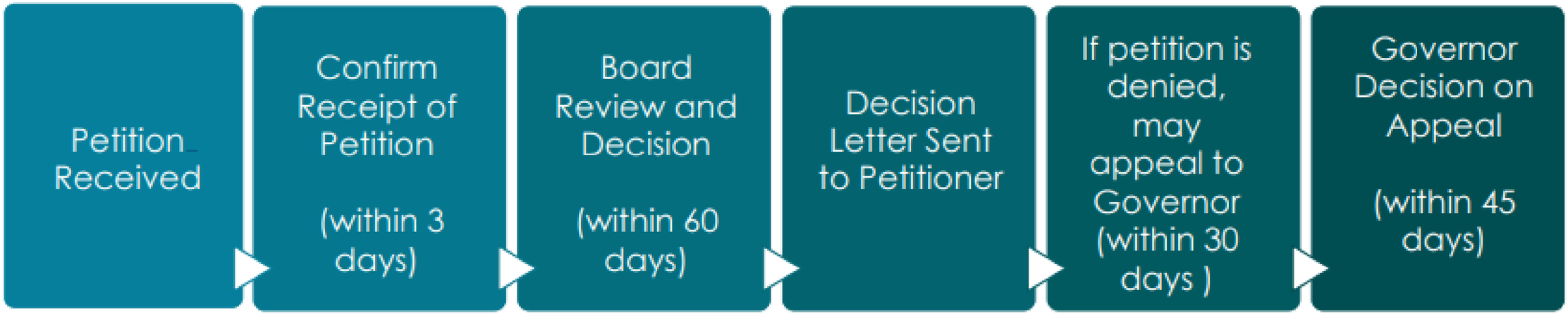
Shay Bauman, Policy Advisor – January 8, 2025

WASHINGTON STATE BOARD OF HEALTH

Background

Under the Administrative Procedures Act, RCW 34.05.330, any person may petition a state agency to adopt, repeal, or amend any rule within its authority.

Overview of the Board's Petition Process



RCW 43.20.050 grants the Board authority to adopt rules for Group A Public Water Systems necessary to assure safe and reliable drinking water and protect the public health. These rules are within Chapter 246-290 WAC.

Petition

The petition requests the Board add a new section to WAC 246-290-220 stating the following:

In keeping with the Federal Safe Drinking Water Act S.433 and the Food Drug and Cosmetic Act, Title 21, the Board of Health does not recommend any substance be added to water with intent to treat humans, unrelated to treatment of water as defined in RCW 18.64.011(14)(15) or 21 U.S. Code § 321(g)(1), unless approved by the Food and Drug Administration in compliance with the U. S. Food, Drug and Cosmetic Act. This recommendation does not apply to substances added to water to make water safer as determined by the U.S. Environmental Protection Administration in compliance with the Safe Drinking Water Act.

WAC 246-290-220 – Drinking Water Materials and Additives

WAC 246-290-220 requires Group A public water systems to test and certify for conformance with NSF/ANSI Standards 60 and 61 for:

- treatment chemicals added to public drinking water supplies; and

- public water system components in substantial contact with potable water such as water pipes, tank coatings or liners, and treatment system media.

Previous Board Recommendations

In an April 2015 Workshop Report, the Board recommended strategies to improve the oral health of Washington residents, including the following:

- Health Systems
- Community Water Fluoridation
- Sealant Programs
- Interprofessional Collaboration
- Oral Health Literacy
- Surveillance
- Workforce Development

Board Discussion

Petition Request: add a new subsection to WAC 246-290-220 stating the following:

In keeping with the Federal Safe Drinking Water Act S.433 and the Food Drug and Cosmetic Act, Title 21, the Board of Health does not recommend any substance be added to water with intent to treat humans, unrelated to treatment of water as defined in RCW 18.64.011(14)(15) or 21 U.S. Code § 321(g)(1), unless approved by the Food and Drug Administration in compliance with the U. S. Food, Drug and Cosmetic Act. This recommendation does not apply to substances added to water to make water safer as determined by the U.S. Environmental Protection Administration in compliance with the Safe Drinking Water Act.

Staff Recommendation:

Decline the petition for rulemaking

- Pending science review in coordination with DOH
- Monitoring EPA action

WASHINGTON STATE BOARD OF HEALTH

THANK YOU

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ACCESSIBILITY AND THE AMERICANS WITH DISABILITIES ACT (ADA)

- The Washington State Board of Health (Board) is committed to providing information and services that are accessible to people with disabilities. We provide reasonable accommodations, and strive to make all our meetings, programs, and activities accessible to all persons, regardless of ability, in accordance with all relevant state and federal laws.
- Our agency, website, and online services follow the Americans with Disabilities (ADA) standards, Section 508 of the Rehabilitation Act of 1973, Washington State Policy 188, and Web Content Accessibility Guidelines (WCAG) 2.0, level AA. We regularly monitor for compliance and invite our users to submit a request if they need additional assistance or would like to notify us of issues to improve accessibility.
- We are committed to providing access to all individuals visiting our agency website, including persons with disabilities. If you cannot access content on our website because of a disability, have questions about content accessibility or would like to report problems accessing information on our website, please call (360) 236-4110 or email wsboh@sboh.wa.gov and describe the following details in your message:
    - The nature of the accessibility needs
    - The URL (web address) of the content you would like to access
    - Your contact information

We will make every effort to provide you the information requested and correct any compliance issues on our website.

GOVERNOR'S INTERAGENCY COUNCIL ON HEALTH DISPARITIES

January 8, 2025

OVERVIEW

- Council background
- Updates
- Upcoming activities
- Stay connected
- Questions

COUNCIL PURPOSE

The Health Disparities Council is a state-level interagency advisory workgroup.

We collaborate across sectors to create policy recommendations and coordinate strategies to eliminate health inequities by race/ethnicity and gender.

Authorizing statute:
Chapters 43.20.270, 43.20.275, 43.20.280 RCW

COUNCIL MEMBERSHIP

- Chair
- 2 Community Members
- Commission on African American Affairs
- Commission on Asian Pacific American Affairs
- Commission on Hispanic Affairs

- Governor's Office of Indian Affairs (delegated to the American Indian Health Commission)
- Office of Superintendent of Public Instruction (K-12 education)
- Department of Social and Health Services
- Workforce Training & Education Coordinating Board
- Department of Children, Youth, and Families
- State Board of Health
- Department of Health
- Health Care Authority
- Department of Agriculture
- Department of Commerce
- Department of Ecology

COUNCIL RESPONSIBILITIES

- Create a state action plan for eliminating health disparities/inequities.
- Create policy recommendations for state agencies, the Governor, and state lawmakers.
- Understand how state government actions reduce or contribute to health inequities.
- Recommend ways to improve the availability of culturally and linguistically appropriate health literature and interpretative services.

PAST RECOMMENDATION AREAS

- Education & early learning
- Health insurance coverage
- Healthcare workforce
- Specific health conditions (obesity, diabetes, adverse birth outcomes)
- Behavioral health
- Reproductive health access
- Poverty reduction
- Disaggregated data
- Culturally and linguistically appropriate services (CLAS)
- Environmental justice
- Equity in state government
- **Health Justice**
- **Council Redesign**

Read Council reports and information on past advisory committees.

PARTNERSHIP

The State Board of Health:

- Helps convene the Council
- Has a seat on the Council
- Conducts Health Impact Reviews in collaboration with the Council
- May interact with similar communities and partners
- Shares a commitment to health equity
- May uplift Council recommendations

UPDATES

- Redesign process and proposal (webpage)
- Community partner engagement (2023 report)
- January 2024 State Action Plan Update (report)
- Health Justice and Equity (informational sheet)
- 2024 Legislative Session results

HEALTH JUSTICE & EQUITY

A **Health Justice Framework**[11] includes:

- Collaboration across areas of study and work
- Racial justice
- Advocacy for systems change
- Upstream interventions that address root causes of inequities
- Adaptability
- Community-based strategies

Health equity only exists when we all have the opportunity to reach our full potential.

Health Justice provides a framework to achieve lasting health equity goals.

Source: [11] Wiley LF, Yearby R, Clark BR, Mohapatra S. INTRODUCTION: What is Health Justice? J Law Med Ethics. 2022;50(4):636-640. doi: 10.1017/jme.2023.2. PMID: 36883386; PMCID: PMC10009391.

UPCOMING ACTIVITIES

- Strengthen our foundation and relationships
- 2025 Legislative Session: request to update our authorizing statute
- Develop a statewide vision for health and wellbeing

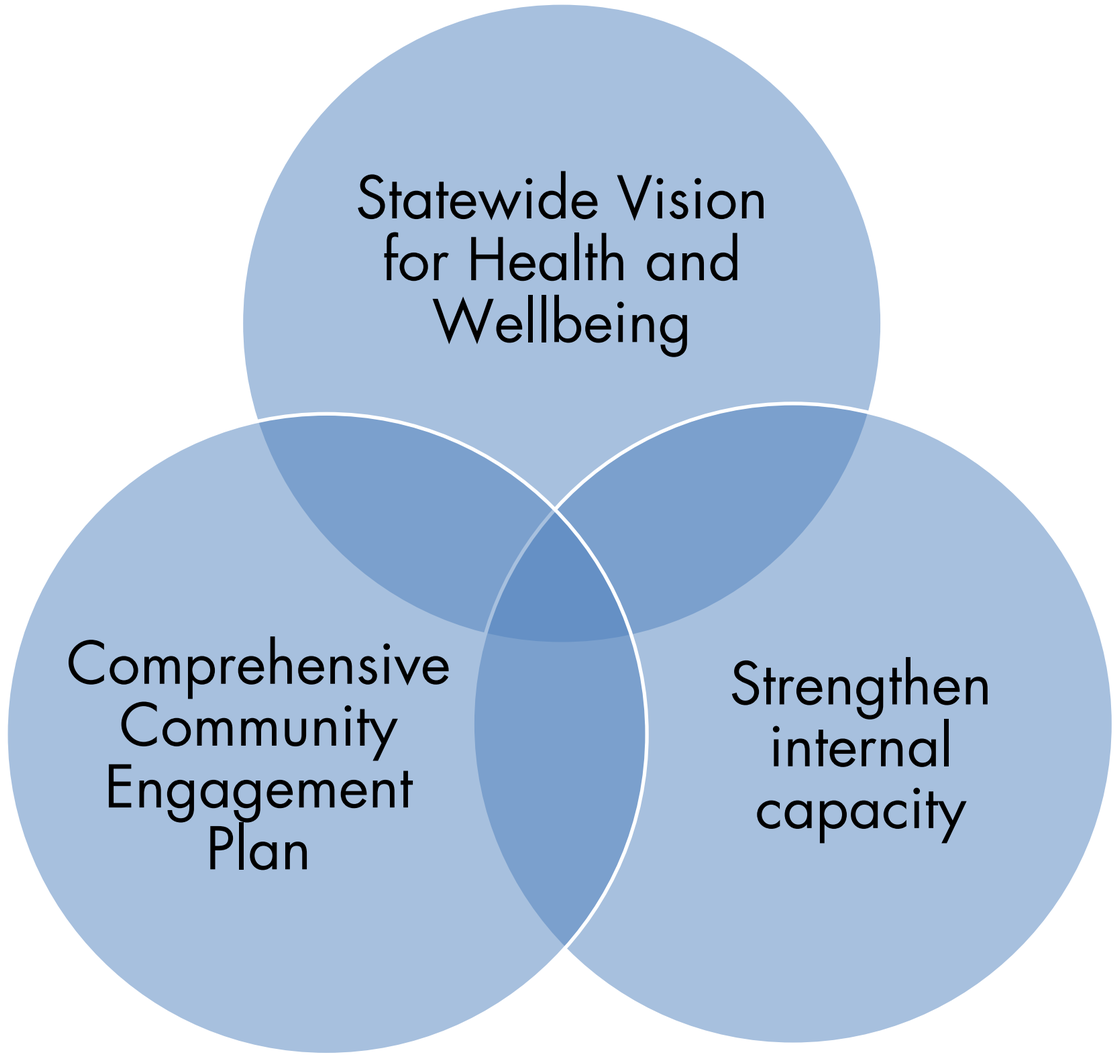
DEVELOPING A COMPREHENSIVE COMMUNITY ENGAGEMENT STRATEGY

Health Disparities Council Outreach Team

Judith Barba Perez
Partnerships and Engagement Coordinator

Jasmine Alik
Partnerships and Engagement Coordinator

Esmael Xiutecpatl Lopez
Lead Engagement Coordinator for Community & Tribal Relations



Community Engagement

Our approach will be a collaborative, community driven process that respects and empowers local voices while ensuring that engagement efforts are inclusive, equitable, and sustainable.

Stay Connected

Website: www.healthequity.wa.gov

Email: healthequity@sboh.wa.gov

Subscribe to our email distribution list.

HEALTH EQUITY
Governor's Interagency Council on Health Disparities

To request this document in an alternate format, please contact the Washington State Board of Health at 360-236-4110 or wsboh@sboh.wa.gov. TTY users can dial 711.

HEALTH IMPACT REVIEWS (HIRS)

RCW 43.20.285

A Health Impact Review (HIR) is an objective, non-partisan, evidence-based analysis that provides the Governor and Legislators with information about how proposed legislation or budget provisos may impact health and equity in Washington State.

The State Board of Health conducts HIRs in collaboration with the Governor's Interagency Council on Health Disparities. Staff complete HIRs on a first-come, first-served basis.

HIR staff:

- Work to understand the potential effects of a legislative or budgetary proposal.
- Conduct a review of published literature to determine how the proposal may impact health and equity.
- Apply objective criteria to evaluate the evidence.
- Talk to key informants to understand how the proposal may impact people in Washington State.
- Provide a final report.
- Testify on HIR findings upon request.

Requesters use HIR findings to:

- Understand the evidence to refine a policy direction.
- Determine if a proposal will have the intended impact.
- Understand potential unintended consequences of a proposal.
- Talk with colleagues about a proposal.

Previous requesters have stated that HIRs are an important tool to inform legislative decision-making, provide credible evidence about a proposal's potential impacts, and present unbiased data and information.

HIR staff have completed 130 HIRs at the request of 62 different Legislators since 2014.

EXAMPLE HIR REQUEST TOPICS FROM THE 2023-24 BIENNIUM

- Concerning alcohol concentration (SB 5002)
- Concerning birth doulas (SB 6172)
- Requiring and funding the purchase of zero emissions school buses (SHB 1368)
- Concerning the jurisdiction of juvenile court (HB 1440)
- Testing individuals who provide language access to state services (SB 5304)

MAKE A REQUEST TODAY

ONLINE REQUEST FORM

hir@sboh.wa.gov

360-628-7342

WASHINGTON STATE BOARD OF HEALTH

HEALTH EQUITY
Governor's Interagency Council on Health Disparities

REVISIONES DEL IMPACTO EN LA SALUD (HIRS)

Sección 43.20.285 del RCW

(por su sigla en inglés, Código Revisado de Washington)

Una HIR (por su sigla en inglés, Revisión del Impacto en la Salud) es un análisis objetivo, no partidista y basado en pruebas que proporciona al gobernador y a la asamblea legislativa información sobre cómo la legislación propuesta o las disposiciones presupuestarias tendrían un impacto en la salud y la equidad en el estado de Washington.

La Mesa Directiva de Salud del Estado lleva a cabo las HIR en colaboración con el Concejo Interagencial sobre Desigualdades de Salud del gobernador. El personal completa las HIR por orden de llegada.

El personal de la HIR:

- Trabaja para conocer los efectos potenciales de una propuesta legislativa o presupuestaria.
- Lleva a cabo una revisión de la bibliografía publicada para determinar cómo la propuesta tendría un impacto en la salud y la equidad. Aplica criterios objetivos para evaluar las pruebas.
- Habla con informantes clave para saber cómo la propuesta tendría un impacto en las personas del estado de Washington. Proporciona un informe final.
- Declara los hallazgos de las HIR a petición.

Los solicitantes utilizan los hallazgos de las HIR para lo siguiente:

- Conocer las pruebas para perfeccionar una política.
- Determinar si una propuesta tendrá el impacto previsto.
- Conocer las posibles consecuencias no previstas de una propuesta.
- Hablar con colegas sobre una propuesta.

Los solicitantes anteriores afirmaron que las HIR son una herramienta importante para fundamentar la toma de decisiones legislativas, proporcionar pruebas creíbles sobre los posibles impactos de una propuesta y presentar datos e información imparciales.

El personal de la HIR ha realizado 130 revisiones a petición de 62 legisladores desde 2014.

EJEMPLO DE TEMAS DE SOLICITUDES DE HIR DEL BIENIO 2023-2024

- Sobre la concentración de alcohol (SB 5002)
- Sobre las doulas de parto (SB 6172)
- Exigir y financiar la compra de autobuses escolares de cero emisiones (SHB 1368)
- Sobre la jurisdicción del tribunal de menores (HB 1440)
- Realizar pruebas a las personas que brindan acceso a idiomas en los servicios estatales (SB 5304)

HAGA UNA SOLICITUD HOY

FORMULARIO DE SOLICITUD EN LÍNEA

WASHINGTON STATE BOARD OF HEALTH

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360-628-7342

HEALTH EQUITY
Governor's Interagency Council on Health Disparities

Para solicitar este documento en un formato alternativo, comuníquese con la Mesa Directiva de Salud del Estado de Washington, enviando un correo electrónico a wsboh@sboh.wa.gov o llamando al 360-236-4110. Marque 711 para acceder al servicio de TTY.

Health Impact Reviews – An Introduction

https://youtu.be/Fe59CxyttNk?feature=shared

English Script below - 37 languages available at https://sboh.wa.gov/introduction-health-impact-reviews

Hi, I'm Lindsay, and I'm part of the team that writes Health Impact Reviews (or H-I-Rs). An HIR is an objective, non-partisan analysis that uses evidence to determine how a bill or budget proposal may impact health and equity in Washington State. HIRs provide decisionmakers with policy-specific information from a health and equity lens.

Any Washington State Legislator or the Governor may request an HIR, and they can be completed on any policy topic, as long as the proposal hasn't passed into law. We are required to complete HIRs in 10 days during Legislative Session and have more flexibility with our timing when the legislature is not in session.

Legislators may request HIRs for many reasons. Some legislators may use HIR findings to learn about potential impacts if a proposal were to become law, to discuss a proposal with colleagues, or to make changes to a proposal.

All completed HIRs are on the State Board of Health's website.

For more information, visit www.sboh.wa.gov/hir.

WASHINGTON STATE BOARD OF HEALTH

Date: January 8, 2025

To: Washington State Board of Health Members

From: Michelle Davis, Executive Director

Subject: Draft Statement of the Board on Possible 2025 Legislative Issues

Background and Summary:

Washington State Board of Health (Board) Policy 2001-001 creates a procedure for monitoring proposed policy and budget issues during legislative session. It also establishes processes for communication between Board Members and the Legislature. The policy calls for the creation of a Board policy statement that guides staff activities and individual Board Members as issues arise during the legislative session.

At our October meeting, I provided Members with a copy of the "Statement of the Board on Possible Legislative Issues 2023-2025 Biennium" and requested suggestions for this year's statement. Since then, I consulted with staff and drafted the attached statement, based on information that we have regarding public health system priorities and Board Member feedback.

I am asking for your consideration and adoption of the 2025 Statement of Policy on Possible Legislative issues. If adopted by the Board, this document will guide staff during the 2025 legislative session, which convenes on January 13, 2025.

Recommended Board Actions:

The Board may wish to consider, or amend as needed, the following motion:
The Board adopts the Statement of Policy on Possible 2025 Legislative Issues as discussed on January 8, 2025.

To request this document in an alternate format or a different language, please contact the Washington State Board of Health at 360-236-4110 or by email at wsboh@sboh.wa.gov. TTY users can dial 711.

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Statement of the Board on Possible Legislative Issues

2025 Legislative Session

It is the policy (Policy 01-001) of the Washington State Board of Health (Board) to comment on legislative proposals that affect the Board's:

- Statutory authority and rules, and
- 2024 State Health Report Recommendations~~, and~~
- ~~2017-2022 strategic plan activities~~

This statement represents the Sense of the Board and is intended to guide staff and Board members in their communications on legislative and budget proposals. The statement is not an exhaustive list of anticipated legislative topics. It focuses on possible legislative issues that may impact the Board or the public health system.

Foundational Public Health Services
The Board believes that *Public Health is Essential* and supports the governmental public health system's efforts to fund the system for the delivery of Foundational Public Health Services (FPHS) so these services are available in every community. The governmental public health system must be able to monitor health, focus on prevention, assure health for all, and be capable of an all-hazards response. It is critical for the State to provide adequate, dedicated, stable funding for full implementation of FPHS statewide that keeps pace with inflation and demand for services and that provides resources to address inequities and innovate and modernize the governmental public health system. This includes increasing the Board's capacity to meet its statutory obligations under Chapter 43.20 RCW and other state laws. The Board **opposes** reductions to funding for the governmental public health system.

Advancing Health Justice and Equity in State Government
The Board recognizes that racism is a public health crisis and is embedded within the health care delivery and public health systems. Racism and other forms of discrimination have been and continue to be institutionalized and perpetuated through policies and practices that prevent meaningful community engagement and limit opportunity and access to important public services. Health inequities cannot be eliminated without addressing structural and institutional racism in these systems. The Board supports legislation prioritizing and operationalizing health justice and equity across state government.

The Board supports the efforts of the Governor's Interagency Council on Health Disparities (Council) to use a health justice framework to advance enduring health equity and social justice. Health justice centers the following principles: racial equity; collaboration across areas of study and work; upstream interventions that address root causes of inequities and injustice; adaptability; advocacy for systems change; and community-based strategies that uphold community power. The Board supports the Council's legislative proposal to update the Council's name, membership, duties, and authority in RCW 43.20 and related laws. The Board also supports ongoing funding for the Council in the state's operating budget to support the Council's operations; enhance community/partner engagement, communications, and collaboration; and provide language assistance services and community compensation.

Health Impact Reviews

Under RCW 43.20.285 the Board conducts Health Impact Reviews (HIRs) at the request of the Governor or a legislator. HIRs are objective, non-partisan, evidence-based analyses of proposed legislative or budgetary changes to determine the potential impacts on health and equity. The Board receives funding for 1.6 FTE through the FPHS budget, which contributes 2.6 FTE total to conduct HIRs. HIRs improve the state's ability to use evidence to inform policy and to promote health and equity. The Board supports additional state and legislative efforts to assess equity impacts of legislative proposals, and the Board recognizes the unique value that HIRs add to legislative decision-making. The rigorous HIR research approach, which uses both quantitative and qualitative research, as well as lived experience, provides legislators with a nuanced understanding of how proposed policy may impact health and equity in the state. The Board supports the retention of HIRs and will continue to offer assistance and support to ensure any newly proposed tools align with and do not duplicate the work of HIRs.

The Board supports legislative action to ensure long-term, sustainable solutions to obtain peer-reviewed literature access for HIR work. The Board believes there is also a need for all state entities (agencies, boards, commissions, councils, etc.) to have access to research and published literature to inform evidence-based policy and program development.

School Environmental Health and Safety

The Board is committed to carrying out the school rule project funded in the 2024 operating budget and looks forward to hearing and considering the technical advisory committee's recommendations. Local health jurisdictions must have sufficient resources and capacity to conduct school environmental health and safety inspections to assure minimum health and safety protections for all school children across the state. Schools must have adequate funding for school modernization, repair, and remediation to improve school environmental health and safety. The Board supports legislation and capital and operating budget proposals to increase funding for schools to improve environmental health and safety and align school environmental health and safety and building efficiency standards. The Board also supports the Office of Superintendent of Public Instruction's request for ongoing support for equitable access to clean air and improving classroom air quality capital decision package, as well as continued funding to the Department of Health's grant program for school districts using small district modernization grants to make updates to existing heating, venting and air conditioning systems.

Commercial Tobacco Products, with Special Attention to Flavors

The Board supports efforts to prevent the marketing, sale, and use of commercial tobacco products to youth, including restrictions on flavored vapor and tobacco products (also known as commercial tobacco). The Board recognizes that the widespread availability of flavored commercial tobacco products and targeted marketing practices, such as the advertising of menthol products to Black and LGBTQIA+ communities and flavored vapor products to youth, raise significant health equity concerns. The Board supports legislation that would strengthen regulation of Washington's commercial tobacco product industry, including requiring ingredient disclosure and routine lab testing for vapor products, requiring health risk signage for commercial tobacco products, removing the preemption of vapor product retail licensing, allowing flavored commercial tobacco product bans and recalls, and establishing nicotine limits for products sold in Washington.

Newborn Screening

The Board has the authority to define and adopt rules for newborn screening in Washington, which include the list of conditions for which the Department of Health's Newborn Screening program screens all newborns. When the Board adds a new condition, the Department must assess the programmatic and fiscal impacts to the current program. The Washington Health Care Authority's Medicaid Program covers about forty percent of births in Washington. The addition of new conditions may require the Department and Health Care Authority to request an increase in the newborn screening fee to cover the costs of new screening tests, staff time, and follow-up services for babies with positive screens, as well as other programmatic and administrative costs. The Board supports funding requests to increase the newborn screening fee to cover the costs associated with new conditions.

Aquatic and Water Recreation Facilities

The Board recognizes that drowning is the leading cause of death for children ages one through four years and is a significant source of morbidity in children under 19 years. State and local regulations on aquatic facilities, water recreation facilities, and designated swim areas are necessary and important to protect the health, safety, and welfare of those who use them. The Board supports proposals to prevent injury, illness, and death at facilities including but not limited to swimming pools, hot tubs, splash pads, water parks, natural designated swim areas.

Drinking Water

The Board recognizes that safe, reliable drinking water systems and drinking water supplies are essential for public health protection and community wellbeing. The Board's Group A rules cover the state's largest public water systems, and its Group B rules apply to public systems that generally serve fewer than fifteen connections. The Board supports budget and policy proposals that strengthen implementation of these rules, drinking water infrastructure, and source water protection. Per- and polyfluoroalkyl substances (PFAS) are a family of more than 12,000 synthetic organic chemicals used in many products, including waterproof clothing, furniture, food packaging, and firefighting foam. Recent federal drinking water standards and proposed federal PFAS waste regulations will affect some Washington state cleanup sites. The Board supports the Department of Ecology's request for additional funding and staff resources to conduct sampling and identify contaminated sites, initiate clean up and provide safe drinking water as interim action during cleanups, and development of a strategy for reducing PFAS in the environment.

Immunizations

The Board recognizes the research and data that demonstrate that immunizations reduce the incidence of vaccine-preventable disease in our community and protect those who are immunocompromised and not vaccinated. The Board supports legislation that helps reduce the number of children out of compliance with state immunization documentation requirements, assists schools and childcares in monitoring the immunization status of children, and increases immunization rates across all age groups. The Board also supports additional funding to improve and maintain access to the Washington State Immunization System.

Washington State Board of Health
Policy & Procedure

Policy Number:	**2001-001**
Subject:	**Monitoring and Communicating With the Legislature About Legislation Relevant to the State Board of Health**
Approved Date:	**January 10, 2001 (Revised June 13, 2012)**

Policy Statement

The Washington State Board of Health monitors and communicates with the Legislature on proposed legislation that:

- Has a direct impact on the Board's statutory powers and duties;
- Runs counter to the Board's intent or direction as stated in existing rule;
- Is directly related to priorities established by the Board each biennium, supported by a Board-approved strategic plan, work plan, interim document, or final report;
- Is directly related to a policy issue addressed in the Board's "Statement on Likely Legislative Issues."
- May adversely impact the public health system.

Procedure

Prior to each legislative session, Board staff, under the direction of the Executive Director, will identify policy issues that are likely to come before the Legislature that have any bearing on the Board's broad statutory authority, its rule making activities, or its priorities. The Executive Director will present a list of these issues to the Board for discussion at a meeting prior to legislative session. The Board may choose to adopt a "Statement on Likely Legislative Issues" that reflects the Board's position on those issues.

During legislative session, Board staff will routinely review legislative bill introductions, committee agendas, and monitor legislative meetings. The Executive Director will provide regular legislative updates to Board members, which may include: upcoming hearings or work sessions, staff activities, bill summaries and recommendations, and budget information.

Action on Bills of Interest

Board staff, in consultation with the Executive Director, shall prepare a summary of concerns, draft messages, and suggested technical solutions for the Chair's approval that Board members or staff may use to communicate the Board's position to a bill's sponsor, appropriate committee chairs, other legislators, and legislative staff.

The Executive Director and the Board Chair or his or her designee must review and approve all correspondence to legislators and legislative staff that conveys the Board's position on legislation or other issues before the Legislature. The correspondence should routinely be copied and sent to the Office of the Secretary – Policy, Legislative, and Constituent Relations.

Responsibility for Communicating with the Legislature
The Board Chair may recommend a specific amendment or other action on proposed legislation to legislators or legislative staff on behalf of the Board, if the Chair believes the position is generally consistent with the wishes of the majority of the Board. The Executive Director or Board staff may transmit or deliver these communications for the Chair.

A Board member may communicate his or her views on Board letterhead and may ask Board staff to help communicate his or her views only if the communication is consistent with Board position and this policy.

This policy is not intended to prevent a Board member from communicating with the Legislature on proposed legislation or other matters of personal interest to the member. However, in these cases, the Board member must clarify that his or her communications do not necessarily reflect the views of the Board and that he or she is acting on his or her own personal behalf.

Agency Request Legislation
Board staff must prepare agency request legislation according to Office of Financial Management (OFM) guidelines and schedules. The Executive Director shall work closely with other state agencies to assure the bill does not conflict with other agency authorities. Consistent with OFM guidelines, all agency request legislation must receive Governor's approval before the Executive Director may seek sponsors or promote the bill to legislators.

Recommendations to the Governor
If the Legislature passes a bill that the Board has testified on or sought amendments to, Board staff, in consultation with the Executive Director and Board Chair, may develop a recommendation to the Governor to sign, partially veto, or veto the legislation. The memo must briefly describe the bill, the Board's position, and recommend Governor's action (sign, partial veto, or veto). Prior to submitting a memo to the Governor's office, staff must complete an enrolled bill analysis for the Governor's executive policy analyst assigned to the legislation.

PDC Reporting
Any Board or staff member who has in-person contact with legislators or legislative staff, including in meetings and at hearings, regarding legislation on behalf of the Board must report the activity to the Executive Director. This report must include the date of the communication, length of time spent with the individual(s), and the topic of discussion, including bill numbers. The Executive Director may need to include these reports in the Board's consolidated quarterly lobbying report as required by the Public Disclosure Commission under RCW 42.17A.635.

WASHINGTON STATE BOARD OF HEALTH

Date: January 8, 2025

To: Washington State Board of Health Members

From: Paj Nandi, Board Member

Subject: Rules Briefing – Group A Public Water Supplies, WAC 246-290-315(8) PFAS Emergency Rulemaking – Possible Action

Background and Summary:
RCW 43.20.030(2)(a) grants the State Board of Health (Board) authority to adopt rules for Group A public water systems that are necessary to assure safe and reliable drinking water and to protect public health.

In October 2021, the Board adopted drinking water state action levels (SALs) for per- and polyfluoroalkyl substances (PFAS) in chapter 246-290 WAC, Group A Public Water Supplies and related provisions in chapter 246-390 WAC, Drinking Water Laboratory Certification and Data Reporting. WAC 246-290-315 includes criteria for monitoring, reporting, follow-up actions, and public notification relevant to SALs.

On June 24, 2024, the Board adopted emergency rules to correct criteria in the rule that apply when the Environmental Protection Agency (EPA) adopts a federal maximum contaminant level (MCL) for a contaminant that has a SAL set in rule. Before the change, WAC 246-290-315(8) read that upon *adoption* of a federal MCL, the MCL will supersede a SAL, and the associated requirements, including for monitoring and public notice. The Board adopted a second filing of the emergency amendments on October 22, 2024.

The first emergency rulemaking, filed as WSR 24-14-016, changed this to state that *when a federal MCL becomes effective,* the MCL will supersede a SAL and its requirements. This change ensures that the protections Washington currently has in place for the SALs remain in place until the federal MCLs become effective in April 2029. Emergency rules remain in effect for 120 days, and the current emergency rule expires on February 19, 2025, which is before the Board's next regularly scheduled meeting.

Today, Ashley Noble, Board Policy Advisor, will brief the Board on the impacts of the emergency rule and provide a recommendation.

(continued on the next page)

Recommended Board Actions:

The Board may wish to consider and amend, if necessary, the following motions:

The Board directs staff to file a CR-103E to initiate rulemaking for WAC 246-290-315, to continue to clearly maintain the SALs and associated requirements until the federal standards are effective, or the Board completes its revision of the permanent rule.

Staff

Ashley Noble, Policy Advisor

WAC 246-290-315(8) – PFAS Emergency Rulemaking

Ashley Noble, Policy Advisor – January 8, 2025

WASHINGTON STATE BOARD OF HEALTH

Previous Rule

WAC 246-290-315(8): State action levels (SALs) and state maximum contaminant levels (MCLs).

(8) Upon federal adoption of an MCL, the federal MCL will supersede a SAL or a less stringent state MCL, and the associated requirements, including for monitoring and public notice. If the federally adopted MCL is less stringent than a SAL or state MCL, the board may take one of the following actions:

(a) Adopt the federal MCL; or

(b) Adopt a state MCL, at least as stringent as the federal MCL, using the process in subsections (6) and (7) of this section.

Current rule expires on February 19, 2025

Emergency Rules expire 120 days after they go into effect.

- Second Emergency Rule adopted and effective on October 22, 2024, and expires Wednesday, February 19, 2025

Recommendation:

- Initiate a third emergency rulemaking to continue to clearly maintain the SALs and associated requirements.
  - Anticipated effective date February 19, 2025.
  - Rule would expire June 19, 2025

Federal Rule Provisions	Effective Date
• Analytical Requirements*	June 25, 2024
• Consumer confidence reporting* • Ongoing compliance monitoring* • Reporting and recordkeeping* • Initial monitoring results reporting • Public notification for testing and procedure violations	April 26, 2027
• PFAS MCL violations • MCL compliance requirements • 30-day Public Notification for MCL violations*	April 26, 2029

Proposed Language

~~Upon federal adoption of an MCL, the federal~~ When a federal MCL becomes effective, the MCL will supersede a SAL or a less stringent state MCL, and the associated requirements, including for monitoring and public notice. If the federally adopted MCL is less stringent than a SAL or state MCL, the board may take one of the following actions:

(a) Adopt the federal MCL; or

(b) Adopt a state MCL, at least as stringent as the federal MCL, using the process in subsections (6) and (7) of this section.

Action Item:
Proceed with emergency rulemaking?

Future Actions

Permanent Rulemaking

- Language is being finalized with the Office of Drinking Water (DOH)
- Met with Ecology regarding potential changes
- Informal comment period
- Environmental Justice Assessment Scoping

Abbreviated Rulemaking

- Section-by-section review

Questions?

WASHINGTON STATE BOARD OF HEALTH

THANK YOU

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ACCESSIBILITY AND THE AMERICANS WITH DISABILITIES ACT (ADA)

- The Washington State Board of Health (Board) is committed to providing information and services that are accessible to people with disabilities. We provide reasonable accommodations, and strive to make all our meetings, programs, and activities accessible to all persons, regardless of ability, in accordance with all relevant state and federal laws.
- Our agency, website, and online services follow the Americans with Disabilities (ADA) standards, Section 508 of the Rehabilitation Act of 1973, Washington State Policy 188, and Web Content Accessibility Guidelines (WCAG) 2.0, level AA. We regularly monitor for compliance and invite our users to submit a request if they need additional assistance or would like to notify us of issues to improve accessibility.
- We are committed to providing access to all individuals visiting our agency website, including persons with disabilities. If you cannot access content on our website because of a disability, have questions about content accessibility or would like to report problems accessing information on our website, please call (360) 236-4110 or email wsboh@sboh.wa.gov and describe the following details in your message:
    - The nature of the accessibility needs
    - The URL (web address) of the content you would like to access
    - Your contact information

We will make every effort to provide you the information requested and correct any compliance issues on our website.

AMENDATORY SECTION (Amending WSR 21-23-097, filed 11/17/21, effective 1/1/22)

WAC 246-290-315 State action levels (SALs) and state maximum contaminant levels (MCLs). (1) The department shall consider the following criteria to select a contaminant for developing a SAL:

(a) Drinking water contributes to human exposure to the contaminant.

(b) The contaminant is known or likely to occur in public water systems at levels of public health concern. Sources of occurrence information include, but are not limited to:

(i) Washington state department of agriculture;

(ii) Washington state department of ecology; and

(iii) Monitoring results reported in accordance with 40 C.F.R. 141.35.

(c) The contaminant has a possible adverse effect on the health of persons exposed based on peer-reviewed scientific literature or government publications, such as:

(i) An EPA health assessment such as an Integrated Risk Information System assessment;

(ii) Agency for Toxic Substances and Disease Registry toxicological profiles;

(iii) State government science assessment; and

(iv) EPA guidelines for exposure assessment such as the EPA exposure factors handbook.

(d) A certified drinking water lab can accurately and precisely measure the concentration of the contaminant in drinking water at and below the level of public health concern using EPA-approved analytical methods.

(2) After consideration of the criteria in subsection (1) of this section, the department may develop a SAL based on the following:

(a) Evaluation of available peer-reviewed scientific literature and government publications on fate, transport, exposure, toxicity and health impacts of the contaminant and relevant metabolites;

(b) An assessment based on the most sensitive adverse effect deemed relevant to humans and considering susceptibility and unique exposures of the most sensitive subgroup such as pregnant women, fetuses, young children, or overburdened and underserved communities; and

(c) Technical limitations to achieving the SAL such as insufficient analytical detection limit achievable at certified drinking water laboratories.

(3) The state board of health shall consider the department's findings under subsections (1) and (2) of this section when considering adopting a SAL under this chapter.

(4) Contaminants with a SAL.

(a) If a SAL under Table 9 of this section is exceeded, the purveyor shall take follow-up action as required under WAC 246-290-320. For contaminants where the SAL exceedance is determined based upon an RAA, the RAA will be calculated consistent with other organic contaminants per WAC 246-290-320(6) or other inorganic contaminants per WAC 246-290-320(3).

TABLE 9

STATE ACTION LEVELS

Contaminant or Group of Contaminants	**SAL**	**SAL Exceedance Based On:**
Per- and polyfluoroalkyl substances (PFAS)		
PFOA	10 ng/L	Confirmed detection
PFOS	15 ng/L	Confirmed detection
PFHxS	65 ng/L	Confirmed detection
PFNA	9 ng/L	Confirmed detection
PFBS	345 ng/L	Confirmed detection

(b) If a system fails to collect and submit a confirmation sample to a certified lab within ten business days of notification of the sample results, or as required by the department, the results of the original sample will be used to determine compliance with the SAL.

(5) The department shall consider the following when developing a state MCL:

(a) The criteria in subsection (1) of this section;

(b) Whether regulating the contaminant presents a meaningful opportunity to reduce exposures of public health concern for persons served by public water systems;

(c) The need for an enforceable limit to achieve uniform public health protection in Group A public water systems; and

(d) The need for an enforceable limit to support source water investigation and clean-up of a contaminant in drinking water supplies by responsible parties.

(6) In addition to the requirements in subsection (5) of this section, the department shall:

(a) Meet the requirements of subsection (2) of this section;

(b) Comply with the requirements in RCW 70A.130.010 to establish standards for chemical contaminants in drinking water;

(c) Consider the best available treatment technologies and affordability taking into consideration the costs to small water systems; and

(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs.

(7) The state board of health shall consider the department's findings under subsections (5) and (6) of this section and follow the requirements under chapters 34.05 and 19.85 RCW when adopting a state MCL under this chapter.

(8) ((~~Upon federal adoption of an MCL~~)) When a federal MCL takes effect, the federal MCL will supersede a SAL or a less stringent state MCL, and the associated requirements, including for monitoring and public notice. If the federally adopted MCL is less stringent than a SAL or state MCL, the board may take one of the following actions:

(a) Adopt the federal MCL; or

(b) Adopt a state MCL, at least as stringent as the federal MCL, using the process in subsections (6) and (7) of this section.

[Statutory Authority: RCW 43.20.050, 70A.125.080, and 70A.130.010. WSR 21-23-097, § 246-290-315, filed 11/17/21, effective 1/1/22.]

RCW 43.20.050 Powers and duties of state board of health—Rule making—Delegation of authority—Enforcement of rules. (1) The state board of health shall provide a forum for the development of public health policy in Washington state. It is authorized to recommend to the secretary means for obtaining appropriate citizen and professional involvement in all public health policy formulation and other matters related to the powers and duties of the department. It is further empowered to hold hearings and explore ways to improve the health status of the citizenry.

In fulfilling its responsibilities under this subsection, the state board may create ad hoc committees or other such committees of limited duration as necessary.

(2) In order to protect public health, the state board of health shall:

(a) Adopt rules for group A public water systems, as defined in RCW 70A.125.010, necessary to assure safe and reliable public drinking water and to protect the public health. Such rules shall establish requirements regarding:

(i) The design and construction of public water system facilities, including proper sizing of pipes and storage for the number and type of customers;

(ii) Drinking water quality standards, monitoring requirements, and laboratory certification requirements;

(iii) Public water system management and reporting requirements;

(iv) Public water system planning and emergency response requirements;

(v) Public water system operation and maintenance requirements;

(vi) Water quality, reliability, and management of existing but inadequate public water systems; and

(vii) Quality standards for the source or supply, or both source and supply, of water for bottled water plants;

(b) Adopt rules as necessary for group B public water systems, as defined in RCW 70A.125.010. The rules shall, at a minimum, establish requirements regarding the initial design and construction of a public water system. The state board of health rules may waive some or all requirements for group B public water systems with fewer than five connections;

(c) Adopt rules and standards for prevention, control, and abatement of health hazards and nuisances related to the disposal of human and animal excreta and animal remains;

(d) Adopt rules controlling public health related to environmental conditions including but not limited to heating, lighting, ventilation, sanitary facilities, and cleanliness in public facilities including but not limited to food service establishments, schools, recreational facilities, and transient accommodations;

(e) Adopt rules for the imposition and use of isolation and quarantine;

(f) Adopt rules for the prevention and control of infectious and noninfectious diseases, including food and vector borne illness, and rules governing the receipt and conveyance of remains of deceased persons, and such other sanitary matters as may best be controlled by universal rule; and

(g) Adopt rules for accessing existing databases for the purposes of performing health related research.

(3) The state board shall adopt rules for the design, construction, installation, operation, and maintenance of those

on-site sewage systems with design flows of less than three thousand five hundred gallons per day.

(4) The state board may delegate any of its rule-adopting authority to the secretary and rescind such delegated authority.

(5) All local boards of health, health authorities and officials, officers of state institutions, police officers, sheriffs, constables, and all other officers and employees of the state, or any county, city, or township thereof, shall enforce all rules adopted by the state board of health. In the event of failure or refusal on the part of any member of such boards or any other official or person mentioned in this section to so act, he or she shall be subject to a fine of not less than fifty dollars, upon first conviction, and not less than one hundred dollars upon second conviction.

(6) The state board may advise the secretary on health policy issues pertaining to the department of health and the state. [2021 c 65 § 37; 2011 c 27 § 1; 2009 c 495 § 1; 2007 c 343 § 11; 1993 c 492 § 489; 1992 c 34 § 4. Prior: 1989 1st ex.s. c 9 § 210; 1989 c 207 § 1; 1985 c 213 § 1; 1979 c 141 § 49; 1967 ex.s. c 102 § 9; 1965 c 8 § 43.20.050; prior: (i) 1901 c 116 § 1; 1891 c 98 § 2; RRS § 6001. (ii) 1921 c 7 § 58; RRS § 10816.]

Explanatory statement—2021 c 65: See note following RCW 53.54.030.

Effective date—2009 c 495: "Except for section 9 of this act, this act is necessary for the immediate preservation of the public peace, health, or safety, or support of the state government and its existing public institutions, and takes effect immediately [May 14, 2009]." [2009 c 495 § 17.]

Findings—1993 c 492: "The legislature finds that our health and financial security are jeopardized by our ever increasing demand for health care and by current health insurance and health system practices. Current health system practices encourage public demand for unneeded, ineffective, and sometimes dangerous health treatments. These practices often result in unaffordable cost increases that far exceed ordinary inflation for essential care. Current total health care expenditure rates should be sufficient to provide access to essential health care interventions to all within a reformed, efficient system.

The legislature finds that too many of our state's residents are without health insurance, that each year many individuals and families are forced into poverty because of serious illness, and that many must leave gainful employment to be eligible for publicly funded medical services. Additionally, thousands of citizens are at risk of losing adequate health insurance, have had insurance canceled recently, or cannot afford to renew existing coverage.

The legislature finds that businesses find it difficult to pay for health insurance and remain competitive in a global economy, and that individuals, the poor, and small businesses bear an inequitable health insurance burden.

The legislature finds that persons of color have significantly higher rates of mortality and poor health outcomes, and substantially lower numbers and percentages of persons covered by health insurance than the general population. It is intended that chapter 492, Laws of

1993 make provisions to address the special health care needs of these racial and ethnic populations in order to improve their health status.

The legislature finds that uncontrolled demand and expenditures for health care are eroding the ability of families, businesses, communities, and governments to invest in other enterprises that promote health, maintain independence, and ensure continued economic welfare. Housing, nutrition, education, and the environment are all diminished as we invest ever increasing shares of wealth in health care treatments.

The legislature finds that while immediate steps must be taken, a long-term plan of reform is also needed." [1993 c 492 § 101.]

Intent—1993 c 492: "(1) The legislature intends that state government policy stabilize health services costs, assure access to essential services for all residents, actively address the health care needs of persons of color, improve the public's health, and reduce unwarranted health services costs to preserve the viability of nonhealth care businesses.

(2) The legislature intends that:

(a) Total health services costs be stabilized and kept within rates of increase similar to the rates of personal income growth within a publicly regulated, private marketplace that preserves personal choice;

(b) State residents be enrolled in the certified health plan of their choice that meets state standards regarding affordability, accessibility, cost-effectiveness, and clinical efficaciousness;

(c) State residents be able to choose health services from the full range of health care providers, as defined in RCW 43.72.010(12), in a manner consistent with good health services management, quality assurance, and cost effectiveness;

(d) Individuals and businesses have the option to purchase any health services they may choose in addition to those included in the uniform benefits package or supplemental benefits;

(e) All state residents, businesses, employees, and government participate in payment for health services, with total costs to individuals on a sliding scale based on income to encourage efficient and appropriate utilization of services;

(f) These goals be accomplished within a reformed system using private service providers and facilities in a way that allows consumers to choose among competing plans operating within budget limits and other regulations that promote the public good; and

(g) A policy of coordinating the delivery, purchase, and provision of health services among the federal, state, local, and tribal governments be encouraged and accomplished by chapter 492, Laws of 1993.

(3) Accordingly, the legislature intends that chapter 492, Laws of 1993 provide both early implementation measures and a process for overall reform of the health services system." [1993 c 492 § 102.]

Short title—Savings—Reservation of legislative power—Effective dates—1993 c 492: See RCW 43.72.910 through 43.72.915.

Severability—1992 c 34: See note following RCW 69.07.170.

Effective date—Severability—1989 1st ex.s. c 9: See RCW 43.70.910 and 43.70.920.

Savings—1985 c 213: "This act shall not be construed as affecting any existing right acquired or liability or obligation incurred under the sections amended or repealed in this act or under any rule, regulation, or order adopted under those sections, nor as affecting any proceeding instituted under those sections." [1985 c 213 § 31.]

Effective date—1985 c 213: "This act is necessary for the immediate preservation of the public peace, health, and safety, the support of the state government and its existing public institutions, and shall take effect June 30, 1985." [1985 c 213 § 33.]

Severability—1967 ex.s. c 102: See note following RCW 43.70.130.

Rules and regulations—Visual and auditory screening of pupils: RCW 28A.210.020.

WASHINGTON STATE BOARD OF HEALTH

Date: January 8, 2025

To: Washington State Board of Health Members

From: Paj Nandi, Board Member

Subject: Pro-Equity Anti-Racism (PEAR) Plan and Playbook

Background and Summary:

The COVID-19 pandemic highlighted longstanding health and other disparities that impact Washington State communities in different ways, often leading to inequitable outcomes. The Governor's Executive Order 22-04 implements the Washington State Pro-Equity Anti-Racism (PEAR) Plan and Playbook. It requires that all state agencies, including boards and commissions, implement a PEAR Strategic Action Plan ("Plan") to drive systemic change, work towards dismantling oppressive systems, and promote equity across all of society.

This year, the Board will need to complete their initial Plan. The Plan must be within the Board's sphere of influence, capacity, and authority. Members from various communities have provided feedback and insight into the draft Plan. Today, Board staff will provide general background on the PEAR Plan and will review goals, objectives, and actions that Board Members and staff can engage in to center equity more intentionally and consistently. This is an opportunity for the Board to discuss PEAR strategies and take potential action to approve the Board's first PEAR Strategic Action Plan.

Possible Board Motions:

The Board may wish to consider and amend, if necessary, one of the following motions:

The Board adopts the PEAR Strategic Action Plan, and directs staff to finalize the Plan as discussed, notify the Office of Equity, and file the Plan as requested.

OR

The Board declines adoption of the draft PEAR Strategic Action Plan. The Board directs staff to notify the Office of Equity of its decision, and to continue working on the development of a Plan.

Staff

Ashley Bell, Deputy Director

PO Box 47990 • Olympia, WA 98504-7990
360-236-4110 • wsboh@sboh.wa.gov • sboh.wa.gov

DRAFT

Washington State Board of Health

Pro-Equity Anti-Racism (PEAR)

Strategic Action Plan

January 2025

Report Authors

Paj Nandi, Sponsor, Board of Health

Ashley Bell, Deputy Director, Board Staff

Pro-Equity Anti-Racism Plan

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Accessibility and the Americans With Disabilities Act (ADA)

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Washington State Board of Health

Statement on Pro-Equity, Anti-Racism

For years, the Washington State Board of Health has recognized the need to focus on and accelerate diversity, equity, and inclusion initiatives to help advance health equity and wellbeing for all Washingtonians. The State Board of Health's mission is to provide statewide leadership in advancing policies that protect and improve the public's health. The Board achieves this mission by monitoring the public's health to understand and prevent disease across the state; serving as a public forum to engage the public in policy development; and adopting foundational public health rules that prevent disease, promote public health and keep people safe.

Board staff have been working on thoughtful community, Tribal and stakeholder engagement through multiple projects and policies. The development of the Pro-Equity, Anti-Racism (PEAR) Strategic Action Plan gives staff the opportunity to become more intentional with our equity work. Most differences in health status and outcomes are due to systemic inequities, which refers to how unequal and unfair distribution of resources across society creates worse health outcomes for certain communities, including but not limited to communities who are Black, Indigenous, and People of Color, LGBTQ+, individuals with disabilities, those with limited English proficiency, and refugee and immigrant communities. These health inequities are often a result of laws, statutes and other policies that intentionally or unintentionally favor/prioritize some communities over others. Board members and staff recognize that barriers to public participation in policy development, language access, lack of trusting and authentic relationships with community-based organizations and Tribes, and adequate workforce training and development often contribute to or exacerbate existing inequities.

In 2022, Governor Jay Inslee issued Executive Order 22-04, which directs state agencies, boards and commissions to implement the Washington State Pro-Equity Anti-Racism Plan and Playbook. The PEAR strategic plan intends to drive changes in systems, policies and practices by addressing upstream, root cause issues that perpetuate systemic inequities. This executive order provides the Board with resources to elevate this work and create a transparent and actionable plan. The plan details how the Board can move closer to becoming an equitable government agency and ultimately enable all people in Washington to flourish and thrive.

This strategic action plan exists to guide our work and create meaningful, positive changes for and with communities who are disproportionately affected by systemic inequities. Because equity is in the details, it embeds equity into our decision-making, policy planning and development, and public meetings and engagement. Coordinated and culturally responsive engagement strategies will improve the Board's ability to have key messengers from multiple communities—who have been historically and are currently at a disadvantage—share their perspectives and voices heard, thus moving the Board closer to equitable rulemaking practices. Additionally, there will be a focus on investing in a workforce that represents communities most impacted by our policies, while expanding staff and Board members' knowledge of pro-equity and anti-racism principles.

This plan centers communities from across Washington state, creating an internal environment that allows the unique innovations, lived experiences and voices of diverse, multicultural perspectives to inform our work. By creating a foundation for pro-equity anti-racism work, future iterations of the plan will dive deeper by continuing to enhance access, equitable rulemaking, and professional development, with community voices at the center. The PEAR Strategic Action Plan is an evolving document that will be reviewed every year to ensure we are following through with our commitments, continuing to assess our equity impact, making informed investments, being transparent and accountable, and shifting practices as necessary.

Overview of

Pro-Equity, Anti-Racism Strategic Action Plan

The Board's PEAR Plan has three goals:

Place Holder for Graphic - Have the Graphic Link to Other Parts of this report (Such as the expanded goals)

SAMPLE IMAGE BELOW

Identified Issues and Impacts

Informing the Plan

The Washington State Board of Health (Board) has completed the baseline equity review of our agency's core business areas to determine where needs are greatest. The PEAR Team reviewed the Board's work and took an inventory of current equity efforts. The Team then reviewed and analyzed gaps in equitable service and grouped identified gaps into buckets. Those buckets then informed goals, objectives, actions and performance measures.

Engagement—Limitations and Opportunities

The Board has existing relationships with community partners and has been in conversation with them through additional projects, such as the development of the State Health Report. Trusted messengers from community-based organizations, participants of previous panels, Board members, and Board staff had the opportunity to identify and discuss root causes for inequities, as well as talk about possible next steps to help inform the draft plan.

The Board of Health was unable to consult and/or collaborate with Tribal governments and Recognized American Indian Organizations. This is because the Board had a shortened timeline to develop its first plan. The Board recognizes a gap in connections with Tribes and Native communities. As a result, the Board has been working on making connections with Tribes during this process and has identified investing in relationships with Tribes as well as Urban Indian Health Organizations as a key goal. We will work in collaboration with Tribes and Urban Indian Health Organizations when completing objectives and for future strategic plan iterations.

Root Causes of Health and Other Inequities

The Board intends to decrease root causes of inequities in our work—and by extension public health at large—by improving access to government practices, information, and participation and by increasing engagement in agency policy and rule development that address the broader factors influencing health and health outcomes. Additionally, the Board wishes to address workforce inequities and enhance community engagement knowledge, skills, and abilities among all staff. These investments can have a positive impact on communities and community members who experience systemic racism, social and economic exclusion, discrimination, exploitation, and other forms of oppression based on several factors like age, disability, education, geographic location, language/literacy, experience in/with the criminal legal system, gender identity, sexual orientation, housing, national origin, race/ethnicity, and socio-economic status.

Barriers related to language services and accessible meeting locations have prevented individuals and communities from participating in government forums and policy decisions. Without the ability to participate in a public forum, participants and attendees, particularly from historically underserved and marginalized communities, have been unable to engage in policy decisions, bring forward policy ideas, and share health topics that affect them and the

communities they live, work, and play in. The Board and the work it does in and for Washington state also lack visibility in many communities. Community members shared the importance of connecting with the Board and its work. Although the Board is a public forum, the lack of visibility in communities and the culture of using technical and academic public health language remains a barrier.

Board members and staff identified a need for professional development and hiring practices that elevate equity, social determinants of health, and the ability to authentically connect with and listen to communities with cultural humility. Staff acknowledged the need for training and professional development centered on equity, so Board members and staff alike can build stronger relationships and make collaborating with the Board a less intimidating process.

Trusted community messengers shared that broader efforts towards language justice are connected to staff development and training. When staff are trained in principles of language justice and access, it can foster trust and safety with community members by developing inclusive communications; increasing awareness of power imbalances between government and community and the work needed to reduce them; and enhanced understanding of cultural contexts, nuances and cultural humility, just to name a few. Other community members noted that a lack of trusting relationships between the Board and community is reflective of ineffective engagement practices. This lack of trusting relationships highlights the need for investing time in and with communities around the state.

Addressing Key Concerns

***Access barriers*:** All work identified in the Board's PEAR Plan will follow the State Department of Health and Office of Equity language access guidelines. Language access should be present and consistent throughout all our written and spoken work. This will ensure our documents and materials are clear and understandable and can increase engagement in Board activities. This will require creating policies and procedures related to accessible meetings, materials, and addressing language needs.

***Meeting venues*:** When state budget allows, meetings will be held in spaces that match agenda topics and the interest/priority of community members. Meetings will be held in spaces that are reflective of Board agenda topics, accessible, and welcoming spaces. The goal is to create an environment for individuals to attend meetings and engage with our work more easily, instead of expecting community members to travel to us. We will ensure our public-facing activities are proactively inclusive for all to attend by providing language interpretation services, compensation for community members' time and attendance, having inclusive and accessible presentation standards for materials and presenters, and creating mechanisms for broader public input.

***Community and Tribal engagement*:** The Board can further strengthen relationships by ensuring we intentionally build and maintain them, are inclusive in our rulemaking process, and proactively meet Tribes and communities where they are. Our investments and engagement can bring diverse community voices to the table during the rulemaking process. Because of our renewed focus on cultivating new and ongoing relationships, we will be able to better identify and reach community

groups who wish to be present during Board activities. Developing community and Tribal engagement procedure guides can improve connections with communities and Tribes alike and facilitate meaningful information reaching Tribal and community leaders. This will require Board staff to create practical policies and procedures for community engagement, Tribal Engagement, government-to-government work, and equitable rulemaking.

***Professional development*:** Investing in community relationship training for Board members will help them engage with communities and Tribes in ways that avoid perpetuating harm. Additionally, the Board will invest in professional development for staff that centers equity and engagement in practice. Researching and implementing updated hiring best practices can help promote equity by reaching and recruiting highly qualified candidates from diverse backgrounds, identities and lived experiences, while still maintaining compliance with state and department of health requirements. This will require a review of existing internal hiring practices and may include, as one example, recommendations for additional job postings and outreach through non-traditional channels. By providing focused education and training around equity and engagement-related activities, staff and Board members will be better prepared to collaborate with community groups who are currently and have been historically marginalized.

Barriers, Challenges, and Solutions

***CLAS assessment*:** Currently, the Board lacks capacity to conduct a Culturally and Linguistically Appropriate Standards (CLAS) assessment. Without this assessment, some barriers to community participation will likely remain. The Board will need to request additional funding to hire an outside contractor or consultant to complete a CLAS assessment and make recommendations.

***Rulemaking process*:** Communities have requested a co-creation role in the rulemaking process. However, the Board's rulemaking must follow the Administrative Procedures Act, which may limit the ability for meaningful community co-creation. The Board will need to find creative ways to develop equitable policy and rules while maintaining authentic relationships with Tribes and communities. To address this issue, the Board has started using Community Responsiveness Summaries. These summaries help determine if community participants felt that the Board was responsive to their needs. Community members reflect on successes and difficulties faced while working with the Board, and that information is used by the outreach coordinator to hold conversations and adjust future engagement strategies. The Board will continue to use these and responsiveness feedback surveys that can collectively help address this challenge.

***Human resources*:** The Board of Health has a memorandum of understanding with the Department of Health for recruitment, hiring, and other human resources needs. As a result, the Board does not have control over many of its human resources practices. The Board will need to evaluate areas where equity- and access-focused changes can be made to these practices.

PEAR Strategic Action Plan

Goals, Objectives, and Actions

Goal 1: Create avenues for communities to participate and inform Board activities.

- **Objective 1.1: Ensure that language access is present and consistent in all our written and spoken work by January 2027**.
    - Action 1: Complete a Culturally and Linguistically Appropriate Standards (CLAS) assessment of our public-facing communications and materials.
        - Performance Measurement 1: Complete a CLAS assessment, contingent on the availability of state funds, with an external consultant by the end of 2025.
    - Action 2: Ensure translations of primary and secondary documents are accurate and culturally appropriate according to CLAS procedures identified in our CLAS assessment.
        - Performance Measurement 2: Track compliance with CLAS recommendations and maintain an 85% or higher compliance rate prior to January 2027.
    - Action 3: Communications will "plain talk" all our external-facing public communications, such as presentations, documents, websites, and summaries, using internal guidance documents.
        - Performance Measurement 3: Guidance around plain talked presentations, documents, websites, and summaries will be created in collaboration with the executive director, deputy director, equity and engagement manager, and communications manager and will be in use by all staff by January 2026.
    - Action 4: The equity and engagement team will develop internal guidance documents, setting language access standards for Board work, prior to January 2026.
        - Performance Measurement 4: Guidance documents shared with agency partners on a regular basis, including for all presenters at Board meetings, and used in conjunction with other agencies' best practices by January 2026.
- **Objective 1.2: Ensure our meeting spaces reflect the topics we work on and communities who may be directly affected by our work by January 2026**.
    - Action 1: The equity and engagement team will establish, implement, and consistently use meeting scoping procedures to ensure the Board meets in community spaces that remove access barriers and promote equity.
        - Performance Measurement 1: The equity and engagement team will develop a meeting location scoping form, with 90% use by January 2026.

    - Action 2: Admin will incorporate meeting space location scoping procedures into internal staff pre- and post-meeting evaluations, by creating a form to evaluate Board meeting spaces during briefings and debriefings.
        - Performance Measurement 2: The equity and engagement team will develop a meeting location scoping form, with 90% use by January 2026.
    - Action 3: Outreach coordinators will support opportunities for Board members and staff to be more visible and accessible in communities, using guidance documents created by the equity and engagement team prior to January 2026.
        - Performance Measurement 3: The equity and engagement team will support and document Board members and staff visits to 85% of the state's counties by January 2026, as funding allows.
- **Objective 1.3: Ensure all public activities are proactively inclusive of impacted, non-regulated parties by January 2026**.
    - Action 1: The equity and engagement manager will ensure the community compensation process is standardized and applied broadly across all Board work.
        - Performance Measurement 1: The equity and engagement manager will create internal guidance documents for staff and provide training for all staff on use of these tools prior to January 2026. These documents should be in use by all staff prior to January 2026.
    - Action 2: The equity and engagement team will create and implement accessibility and equity standards for presenters, such as verbal delivery and presentation standards, at Board meetings prior to January 2026.
        - Performance Measurement 2: Verbal delivery and presentation standards will be created and in use for all Board meetings prior to 2026.
    - Action 3: The equity and engagement manager will review current practices and make recommendations to the Board to increase access to public comment period and rulemaking processes, including expanded timelines to incorporate Disability Justice practices into the Board's public activities prior to July 2025.
        - Performance Measurement 3: The equity and engagement manager's recommendations will be presented to the Board prior to July 2025.

Goal 2: Build relationships with Tribes, community-based organizations, and Washingtonians.

- **Objective 2.1: Center community partnership during rule development by January 2027**.
    - Action 1: Board staff will review current rulemaking policies and procedures with an equity lens to ensure they are creating equitable, accessible opportunities for participation.
        - Performance Measurement 1: Staff's recommendations for increased equity and accessibility will be presented to policy advisors by June 2026. Policy

advisors will demonstrate at least four different methods of community engagement employed for each rulemaking project.

- Action 2: The equity and engagement team will develop a review tool in partnership with impacted communities to assess draft rule language for likely equity impacts.
  - Performance Measurement 2: Draft "Rule Language Assessment Tool" will be presented to policy advisors by June 2026.
- Action 3: Policy advisors or project managers will coordinate with community engagement staff to ensure people with direct lived experiences are equitably included on our Technical Advisory Committees (TACs) and in other rulemaking activities.
  - Performance Measurement 3: Community engagement staff will create guidance and minimum participation requirements for Board staff. This guidance and related requirements will be in use by all policy and management staff by June 2026.

- **Objective 2.2: Develop new and ongoing relationships with communities who are currently and have been historically marginalized and oppressed by January 2027**.
  - Action 1: The equity and engagement team will create and maintain a community engagement database to coordinate engagement with community across all Board staff by January 2026.
    - Performance Measurement 1: The equity and engagement team will document usage standards and provide training on use of the database for all policy and management staff by June 2025. The team will track engagement opportunities and total engagement numbers on a yearly basis.
  - Action 2: All Board staff will engage with community-based organizations and other trusted messengers prior to all Board activities, such as using social media, emails, community events, and other culturally responsive and accessible avenues.
    - Performance Measurement 2: Outreach guidance and minimum standards will be created by equity and engagement staff and will be in use by all staff prior to June 2026.
  - Action 3: The equity and engagement team will create opportunities for Board members to interact with and build relationships with communities, including community panels at Board meetings, and document a process by January 2027.
    - Performance Measurement 3: Guidance and process documentation will be created by June 2026. Once documents are created, staff and Board members will be trained by January 2027. Equity and engagement staff will facilitate at least three opportunities for Board members to interact and build relationships with communities by January 2027.
- **Objective 2.3: Build stronger ties with sovereign Tribes, Tribal organizations, and Tribal communities by January 2026**.
  - Action 1: The Tribal liaison will create a Tribal engagement plan that centers Tribal sovereignty for the Board by January 2026.

        - Performance Measurement 1: A draft Tribal engagement plan will be presented to Board members by October 2025 for comments and approval.
    - Action 2: The Tribal liaison will provide guidance to staff and Board members around the Board's Tribal engagement procedures and processes by July 2026.
        - Performance Measurement 2: The Tribal liaison will create written guidance and procedures and provide them to staff and Board members by July 2026. The liaison will provide training to staff and Board members on this guidance by October 2026.
    - Action 3: Board staff will provide quarterly updates to Tribal partners that are intentional and meaningful, as identified by the Tribes, by July 2026.
        - Performance Measurement 3: The Tribal liaison will ask for feedback and direction from Tribal partners, by July 2026.

Goal 3: Ensure hiring and professional development activities increase Board and Board staff understanding of equity and anti-racism principles by January 2027.

- **Objective 3.1: Provide additional opportunities for candidates from marginalized backgrounds to consider working at the Washington State Board of Health by January 2027.**
    - Action 1: The executive director, or designee, will document at least two new job posting opportunities, beyond traditional avenues, prior to January 2025.
        - Performance Measurement 1: The deputy director will provide written documentation of new job posting opportunities by January 2025.
    - Action 2: The executive director, or designee, will research and incorporate recruitment processes and best practices intended to remove biases and promote a representative and inclusive workforce by January 2026.
        - Performance Measurement 2: The deputy director will document changes to hiring processes and practices by January 2026.
    - Action 3: The executive director, or designee, will write guidance for hiring managers and panels intended to remove biases and promote equity, including intersectionality on the hiring panel, by January 2027.
        - Performance Measurement 3: The deputy director will document changes to hiring processes and practices by October 2026.
- **Objective 3.2: Invest in Board staff professional development and retention by providing equity-centered education and training by January 2027.**
    - Action 1: The equity and engagement manager will provide, or arrange, quarterly training on topics such as: anti-bias, cultural humility, pro-equity and anti-racism, etc. prior to January 2027.

        - Performance Measurement 1: The deputy director will set aside funding from the Foundation Public Health Services equity and engagement fund for ongoing training prior to July 2025.
    - Action 2: The equity and engagement team will provide training for Board members and staff on the Board's approach to engaging with communities, by providing on-boarding training and quarterly training to both Board members and staff, prior to January 2027.
        - Performance Measurement 2: The equity and engagement team will provide learning and growth surveys to assess Board members and staff knowledge on community engagement strategies and change in understanding, at the end of training and professional development opportunities for both Board members and Board staff.

Appendix A

Team Members

Board of Health Members

Patty Hayes, Board Chair

Paj Nandi, Sponsor and Board Member

Board of Health Staff

Michelle Davis, Executive Director

Ashley Bell, Deputy Director

Shay Bauman, Policy Advisor

Molly Dinardo, Policy Advisor

Hannah Haag, Community Outreach Coordinator

Melanie Hisaw, Executive Secretary

Jo-Ann Huynh, Administrative Assistant

LinhPhụng Huỳnh, Health Disparities Council Manager

Cait Lang-Perez, Health Policy Analyst

Michelle Larson, Communications Manager

External Partners

Mohamed Shidane, Deputy Director, Somali Health Board

Zeenia Junkeer, Mount Baker Foundation

Dominique Horn, Southwest Accountable Community of Health

State Agency Partners

Washington State Department of Health

Office of Equity

Appendix B

PEAR Plan Components

The PEAR Plan requires that agencies make investments in key responsibility areas. These investments identify service lines that have the potential to positively contribute to determinants of equity. The Board has core business responsibilities in **communications**, **engagement**, and **policy** development, and an internal focus on **human resources and professional development** so staff can assist in achieving the Board's mission. The PEAR Playbook and Office of Equity website has additional information on these areas.

PEAR Service Line

The Office of Equity provides statewide guidance on creating PEAR plans. To see the whole list of PEAR Services Lines, or for more information about their guidance, click here to see Office of Equity materials.

- The Board's PEAR Team has identified these service lines as where the Board needs to make the greatest changes. Engagement & Community Partnerships
- Public Communications & Education
- Plans, Policies, and Budgets
- Policy Agenda
- Tribal Government Relations
- Leadership, Operations, & Services
- Workforce Equity
- Capacity Building

PEAR Determinants of Equity

These have been identified as PEAR Determinants of Equity that are supported by investments in core business areas. For more information, click here to see Office of Equity guidance.

- Community & Public Safety
- Equity in State & Local Practices
- Healthy Built & Natural Environments
- Health & Human Services
- Housing & Home Ownership
- Parks, Recreation & Natural Resources
- Equity in Jobs & Job Training

PEAR Determinants of Equity Groups

The Office of Equity has identified Determinants of Equity (DoE). From their full list of DoE, the Board's PEAR Team has identified the following DoE as areas that will be strengthened by the work of this PEAR Plan. For more information, click here to see Office of Equity guidance.

- Soil & Nutrients – Government practices
- Root System – Community Infrastructure
- Trunk – Community support systems
- Branches – Family support systems

PRO-EQUITY ANTI-RACISM PLAN

January 8, 2024

Ashley Bell, MPA, CDP

WASHINGTON STATE BOARD OF HEALTH

Overview

- PEAR Plan
- Community Member Feedback
- PEAR Plan Goals, Objectives, and Actions
- Next Steps

PEAR Plan

Overview

WASHINGTON STATE BOARD OF HEALTH

Pro-Equity Anti-Racism (PEAR)

- The Office of Equity recognizes that systems of oppression are the upstream sources of all inequities
  - Directs state agencies, Boards, and Commissions to implement a PEAR Strategic Action Plan

- The PEAR Strategic Action Plan works to:
  - Drive systemic change
  - Dismantle oppressive systems
  - Promote equity in all facets of society

- We want Washingtonians to:
  - Be involved in decision-making
  - Deliver services that meet their needs
  - Trust state government

Pro-Equity Anti-Racism (PEAR)

- With the PEAR Plan we can:
  - Bridge opportunity gaps and reducing disparities statewide and across state government
  - Invest where the needs are the greatest to addresses upstream, root cause, issues that perpetuate systemic inequities
  - Create meaningful impact to the determinants of equity

- We can invest in intentional and meaningful change in how we do our work by embedding equity into decision making. This can:
  - Reduce disparities in key business areas
  - Improve outcomes that benefit all tribes, communities, and employees

Community Member Feedback

Themes

WASHINGTON STATE BOARD OF HEALTH

It’s All Connected!

- You cannot have one item on the plan without another item
- Budget is important, and often there isn’t sustainable funding for this work
- Everyone needs to buy into the PEAR Plan for it to work
- Language Justice is cultural humility
- We have no idea who the Board is; it is important to share that with all communities
- How you present the material is important; you cannot reach communities if they don’t even understand

Goals, Objectives, and Actions

Recommendations

WASHINGTON STATE BOARD OF HEALTH

Create avenues for communities to participate and inform Board activities.

WASHINGTON STATE BOARD OF HEALTH

- **Objective 1.1: Ensure that language access is present and consistent in all our written and spoken work by January 2027.**
  - Action 1: Complete a Culturally and Linguistically Appropriate Standards (CLAS) assessment of our public-facing communications and materials.
  - Action 2: Ensure translations of primary and secondary documents are accurate and culturally appropriate according to CLAS procedures identified in our CLAS assessment.
  - Action 3: Communications will “plain talk” all our external-facing public communications, such as presentations, documents, websites, and summaries, using internal guidance documents.
  - Action 4: The equity and engagement team will develop internal guidance documents, setting language access standards for Board work, prior to January 2026.

- **Objective 1.2: Ensure our meeting spaces reflect the topics we work on and communities who may be directly affected by our work by January 2026.**
  - Action 1: The equity and engagement team will establish, implement, and consistently use meeting scoping procedures to ensure the Board meets in community spaces that remove access barriers and promote equity.
  - Action 2: Admin will incorporate meeting space location scoping procedures into internal staff pre- and post-meeting evaluations, by creating a form to evaluate Board meeting spaces during briefings and debriefings.
  - Action 3: Outreach coordinators will support opportunities for and staff to be more visible and accessible in communities, using guidance documents created by the equity and engagement team prior to January 2026.

- **Objective 1.3: Ensure all public activities are proactively inclusive of impacted, non-regulated parties by January 2026.**
  - Action 1: The equity and engagement manager will ensure the community compensation process is standardized and applied broadly across all Board work.
  - Action 2: The equity and engagement team will create and implement accessibility and equity standards for presenters, such as verbal delivery and presentation standards, at Board meetings prior to January 2026.
  - Action 3: The equity and engagement manager will review current practices and make recommendations to the Board to increase access to public comment period and rulemaking processes, including expanded timelines to incorporate Disability Justice practices into the Board's public activities prior to July 2025.

Build relationships with Tribes, community-based organizations, and Washingtonians.

WASHINGTON STATE BOARD OF HEALTH

- **Objective 2.1: Center community partnership during rule development by January 2027.**
  - Action 1: Board staff will review current rulemaking policies and procedures with an equity lens to ensure they are creating equitable, accessible opportunities for participation.
  - Action 2: The equity and engagement team will develop a review tool in partnership with impacted communities to assess draft rule language for likely equity impacts.
  - Action 3: Policy advisors or project managers will coordinate with community engagement staff to ensure people with direct lived experiences are equitably included on our Technical Advisory Committees (TACs) and in other rulemaking activities.

- **Objective 2.2: Develop new and ongoing relationships with communities who are currently and have been historically marginalized and oppressed by January 2027.**
  - Action 1: The equity and engagement team will create and maintain a community engagement database to coordinate engagement with community across all Board staff by January 2026.
  - Action 2: All Board staff will engage with community-based organizations and other trusted messengers prior to all Board activities, such as using social media, emails, community events, and other culturally responsive and accessible avenues.
  - Action 3: The equity and engagement team will create opportunities for Board Members to interact with and build relationships with communities, including community panels at Board meetings, and document a process by January 2027.

- **Objective 2.3: Build stronger ties with sovereign Tribes, Tribal organizations, and Tribal communities by January 2026.**
  - Action 1: The Tribal liaison will create a Tribal engagement plan that centers Tribal sovereignty for the Board by January 2026.
  - Action 2: The Tribal liaison will provide guidance to staff and Board Members around the Board's Tribal engagement procedures and processes by July 2026.
  - Action 3: Board staff will provide quarterly updates to Tribal partners that are intentional and meaningful, as identified by the Tribes, by July 2026.

Ensure that hiring and professional development activities increase Board and Board staff understanding of equity principles by January 2027.

WASHINGTON STATE BOARD OF HEALTH

- **Objective 3.1: Provide additional opportunities for candidates from marginalized backgrounds to consider working at the Washington State Board of Health by January 2027.**
  - Action 1: The executive director, or designee, will document at least two new job posting opportunities, beyond traditional avenues, prior to January 2025.
  - Action 2: The executive director, or designee, will research and incorporate recruitment processes and best practices intended to remove biases and promote a representative and inclusive workforce by January 2026.
  - Action 3: The executive director, or designee, will write guidance for hiring managers and panels intended to remove biases and promote equity, including intersectionality on the hiring panel, by January 2027.

- **Objective 3.2: Invest in Board staff professional development and retention by providing equity-centered education and training by January 2027.**
  - Action 1: The equity and engagement manager will provide, or arrange, quarterly training on topics such as: anti-bias, cultural humility, pro-equity and anti-racism, etc. prior to January 2027.
  - Action 2: The equity and engagement team will provide training for Board Members and staff on the Board's approach to engaging with communities, by providing on-boarding training and quarterly training to both Board Members and staff, prior to January 2027.

Moving Forward

Next Steps

WASHINGTON STATE BOARD OF HEALTH

Possible Action

The Board adopts the PEAR strategic action plan, and directs staff to finalize the plan as discussed, notify the Office of Equity, and file the plan as requested.

OR

The Board declines adoption of the draft PEAR strategic action plan. The Board directs staff to notify the Office of Equity of its decision, and to continue working on the development of a PEAR strategic action plan.

Next Steps

- The PEAR strategic action plan will be formatted into a report for and submitted to the Office of Equity.

- The new Equity and Engagement Manager will begin working on the next version of the PEAR Plan, including ensuring that our current plan is being fulfilled.

WASHINGTON STATE BOARD OF HEALTH

THANK YOU

To request this document in an alternate format, please contact the Washington State Board of Health at 360-236-4110, or by email at wsboh@sboh.wa.gov | TTY users can dial 711

ACCESSIBILITY AND THE AMERICANS WITH DISABILITIES ACT (ADA)

- The Washington State Board of Health (Board) is committed to providing information and services that are accessible to people with disabilities. We provide reasonable accommodations, and strive to make all our meetings, programs, and activities accessible to all persons, regardless of ability, in accordance with all relevant state and federal laws.
- Our agency, website, and online services follow the Americans with Disabilities (ADA) standards, Section 508 of the Rehabilitation Act of 1973, Washington State Policy 188, and Web Content Accessibility Guidelines (WCAG) 2.0, level AA. We regularly monitor for compliance and invite our users to submit a request if they need additional assistance or would like to notify us of issues to improve accessibility.
- We are committed to providing access to all individuals visiting our agency website, including persons with disabilities. If you cannot access content on our website because of a disability, have questions about content accessibility or would like to report problems accessing information on our website, please call (360) 236-4110 or email wsboh@sboh.wa.gov and describe the following details in your message:
    - The nature of the accessibility needs
    - The URL (web address) of the content you would like to access
    - Your contact information

We will make every effort to provide you the information requested and correct any compliance issues on our website.

WASHINGTON STATE BOARD OF HEALTH

Date: January 8, 2025

To: Washington State Board of Health Members

From: Kelly Oshiro, Board Member

Subject: Update, Chapter 246-650 WAC, Auditory Screening Standards

Background and Summary:

Under state law (RCW 28A.210.020), the Washington State Board of Health (Board) sets the rules for yearly hearing screenings in schools. These rules are in chapter 246-760 WAC. The rules help ensure schools can identify students with difficulty hearing and refer them for follow-up care.

In August 2023, the Lake Chelan Lion's Club requested that the Board update its hearing screening rules. They suggested adding another screening technology called otoacoustic emission screening (OAE). The Board accepted the request and filed a CR-101, Preproposal Statement of Inquiry, in October 2023 to consider this update and other minor changes.

Since then, Board staff have worked with hearing screening experts, identified possible changes to the rules, and engaged interested parties and affected communities through school site visits, information and listening sessions, and a survey for school screening staff. Staff are now using feedback from these efforts to update draft rules before circulating them for informal comments.

I have invited Molly Dinardo, Board Policy Advisor, to provide a brief overview and update on this work. The Board will not take action on this matter today.

Staff

Molly Dinardo, Policy Advisor

PO Box 47990 • Olympia, WA 98504-7990
360-236-4110 • wsboh@sboh.wa.gov • sboh.wa.gov

Update on Washington Auditory Screening Standards Rulemaking Project - Chapter 246-760 WAC

Molly Dinardo, State Board of Health, Health Policy Advisor
Annie Hetzel, Office of Superintendent of Public Instruction, School Health Services Consultant

January 8, 2025

WASHINGTON STATE BOARD OF HEALTH

Key Terms and Abbreviations

- American National Standards Institute (ANSI)
- American Sign Language (ASL)
- Auditory screening equipment (“audiometers” or “pure tone audiometry”)
- Educational Service Districts (ESDs)
- Office of the Superintendent of Public Instruction (OSPI)
- Otoacoustic emissions (OAEs)
- Revised Code of Washington (RCW)
- State-Tribal Education Compact Schools (STECs)
- Washington Administrative Code (WAC)
- Washington State Board of Health (Board)

Overview

- Project Background and Rulemaking Scope
- Engagement and Work to Date
- Proposed Rule Changes
- Tentative Rulemaking Timeline and Next Steps

Overview and Purpose of Washington Auditory Screening Rules

- Washington law requires that the Board make rules for the yearly hearing screenings done in Washington schools (RCW 28A.210.020).
- Chapter 246-760 WAC outlines the requirements for these screenings.
- Screenings are required for students in kindergarten, grades 1-3, and grades 5 and 7.
- Schools may expand these screenings to other grade levels if resources permit.
- Hearing screenings are a key public health tool for identifying students with hearing difficulties and referring them for follow-up care.

Background and Rulemaking Scope

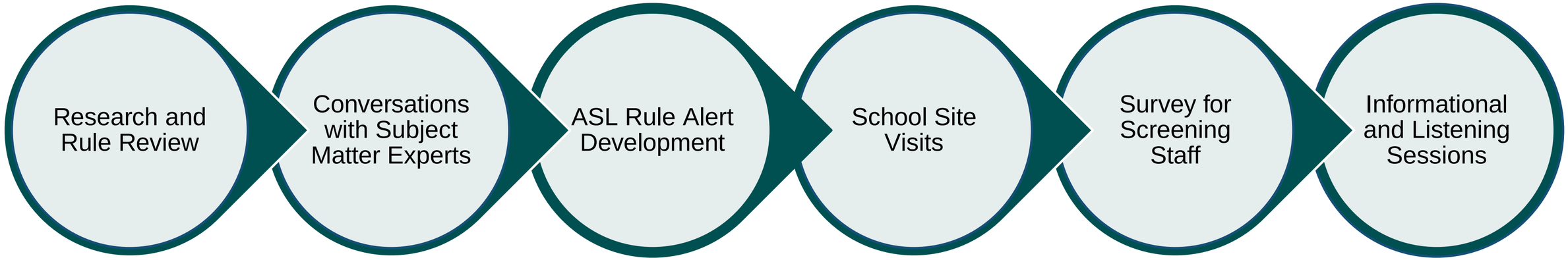
- The Board received a petition for rulemaking from the Lake Chelan Lion's Club asking to add otoacoustic emission (OAE) screening technology to chapter 246-760 WAC.

- Currently, the Board's hearing screening standards only allow the use of auditory screening equipment ("audiometers" or "pure tone audiometry").

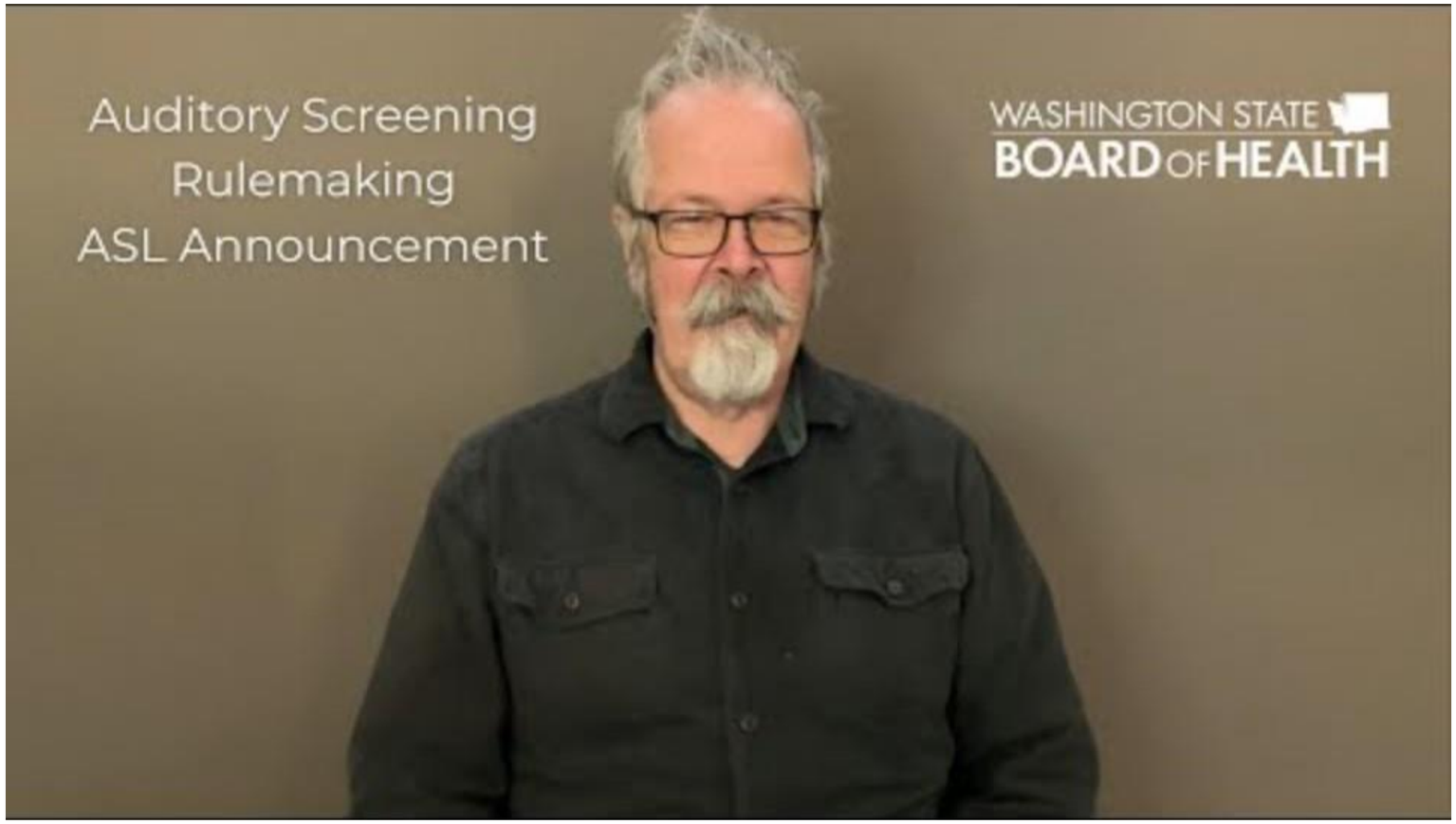
- National guidelines and published research indicate that OAEs are a beneficial screening tool for students unable to participate in pure tone audiometry.

- The hearing sections of chapter 246-760 WAC haven't been updated since 2002 (vision sections were updated in 2017).

Engagement and Work to Date



ASL Rule Alert



Conversations with Subject Matter Experts and Listening Sessions

What We Asked	What We Learned
• Information on evidence-based practices and national guidelines for school hearing screening programs. • Screening practices and procedures for students unable to participate in pure tone. • Rationale for using OAE and experience implementing this technology in screening programs. • General thoughts and feedback on proposed rule changes. • Creating more inclusive communications and engaging people who are Deaf or Hard or Hearing in this work.	• OAEs are commonly used in newborn and early child hearing screenings, but national guidelines and research show they are beneficial in other screening situations. • Many schools in Washington already use OAEs, and several states use them as a backup to pure tone. • Board staff should work with educational audiologists when drafting proposed rule changes. • Advantages and disadvantages of OAEs (e.g., objective screening, costs, equipment maintenance, sensitivity, and frequency differences compared to pure tone) • The impact of deficit-based screening language on community (terms like “hearing loss,” “pass/fail,” “impairment,” etc.).

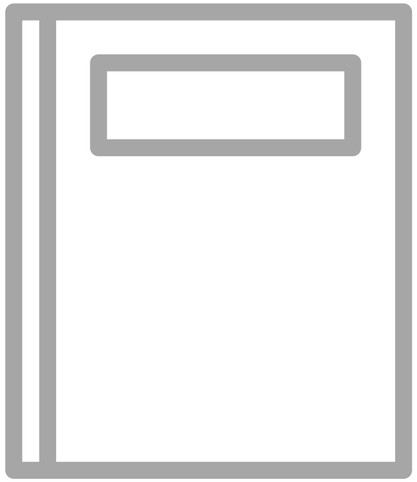
Screening Staff Survey

What We Asked	Who Responded	What We Learned
• Name of school or district • Grade levels screened • Student population • Special practices or procedures used to screen students difficult to screen • OAE as an optional screening tool for hearing screenings	• 149 survey responses total - 90 districts and 59 schools (45 duplicate responses) • 98 out of 295 districts represented in responses. • 1 response from a STEC school • 3 responses from charter schools • 2 responses from private schools	• Most schools and districts only screen students in grade levels required by the rules. • Most schools have students with special learning, developmental, behavioral or other health needs. • Schools use language supports, specialized staff, conditioned play audiometry (CPA) and other methods to screen students. • General support of adding OAE as an optional method, but there are concerns about costs, funding, and staff training.

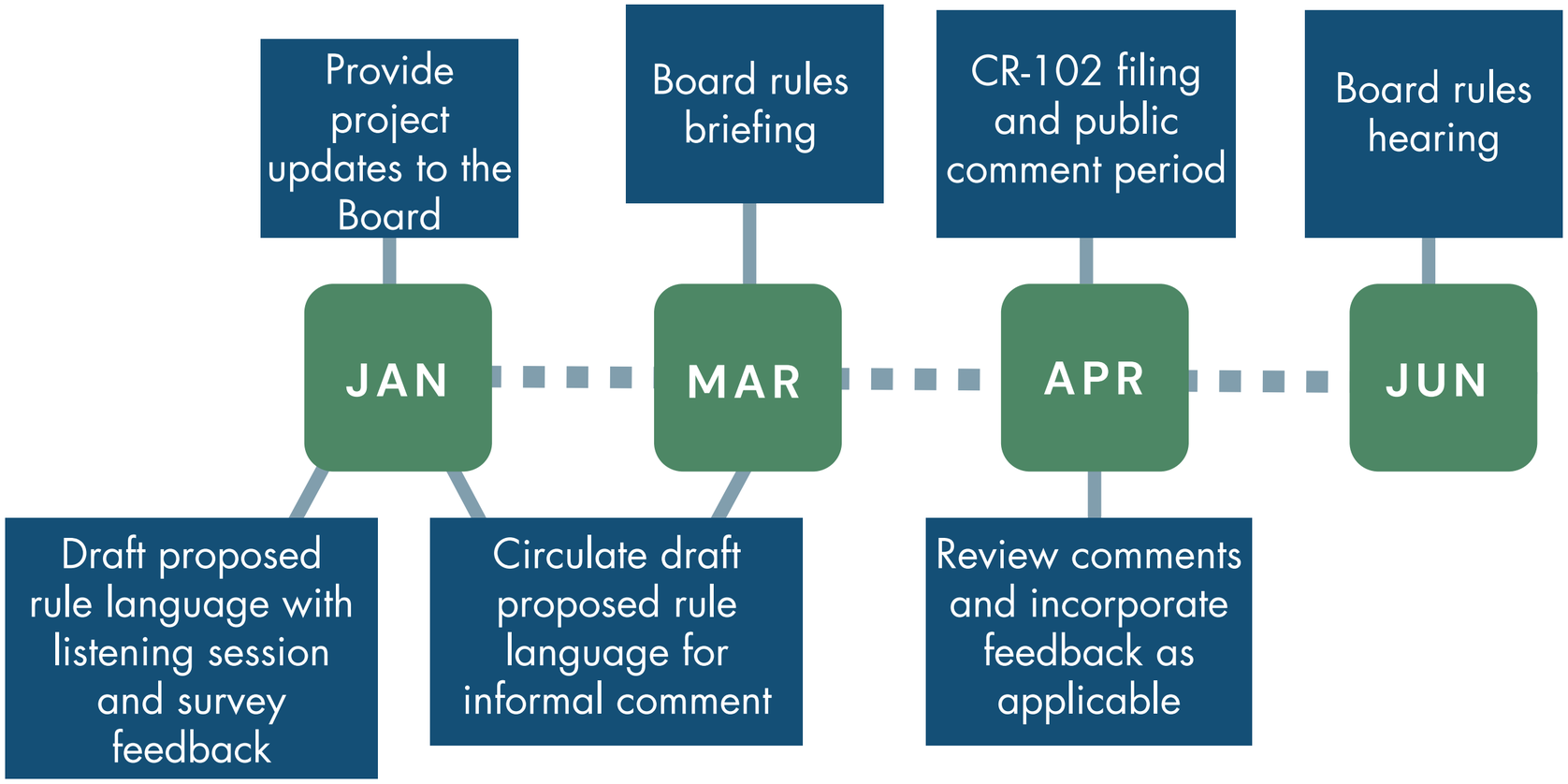
Proposed Rule Changes

Possible revisions to chapter 246-760 WAC include:

- Updating the American National Standards Institute reference in the rule
- Including OAE devices as an optional screening technology
- Adding definitions/abbreviations for the auditory screening rule sections
- Updating rule language for clarity and removing deficit-based terminology
- Rewording rule section titles to match the vision screening sections



Tentative Timeline



WASHINGTON STATE BOARD OF HEALTH

THANK YOU

To learn more about this project, email Molly Dinardo at molly.dinardo@sboh.wa.gov

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ACCESSIBILITY AND THE AMERICANS WITH DISABILITIES ACT (ADA)

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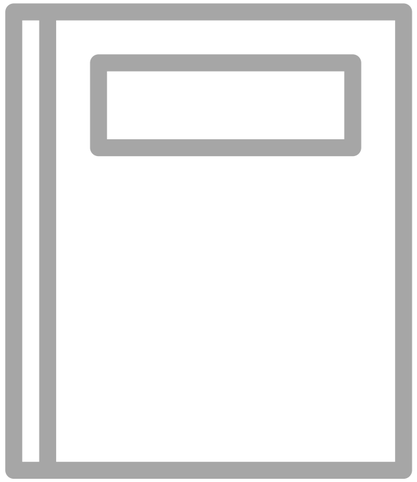
- Our agency, website, and online services follow the Americans with Disabilities (ADA) standards, Section 508 of the Rehabilitation Act of 1973, Washington State Policy 188, and Web Content Accessibility Guidelines (WCAG) 2.0, level AA. We regularly monitor for compliance and invite our users to submit a request if they need additional assistance or would like to notify us of issues to improve accessibility.
- We are committed to providing access to all individuals visiting our agency website, including persons with disabilities. If you cannot access content on our website because of a disability, have questions about content accessibility or would like to report problems accessing information on our website, please call (360) 236-4110 or email wsboh@sboh.wa.gov and describe the following details in your message:
    - The nature of the accessibility needs
    - The URL (web address) of the content you would like to access
    - Your contact information

We will make every effort to provide you the information requested and correct any compliance issues on our website.

Appendix: Details on Proposed Rule Changes

Possible revisions to chapter 246-760 WAC include:

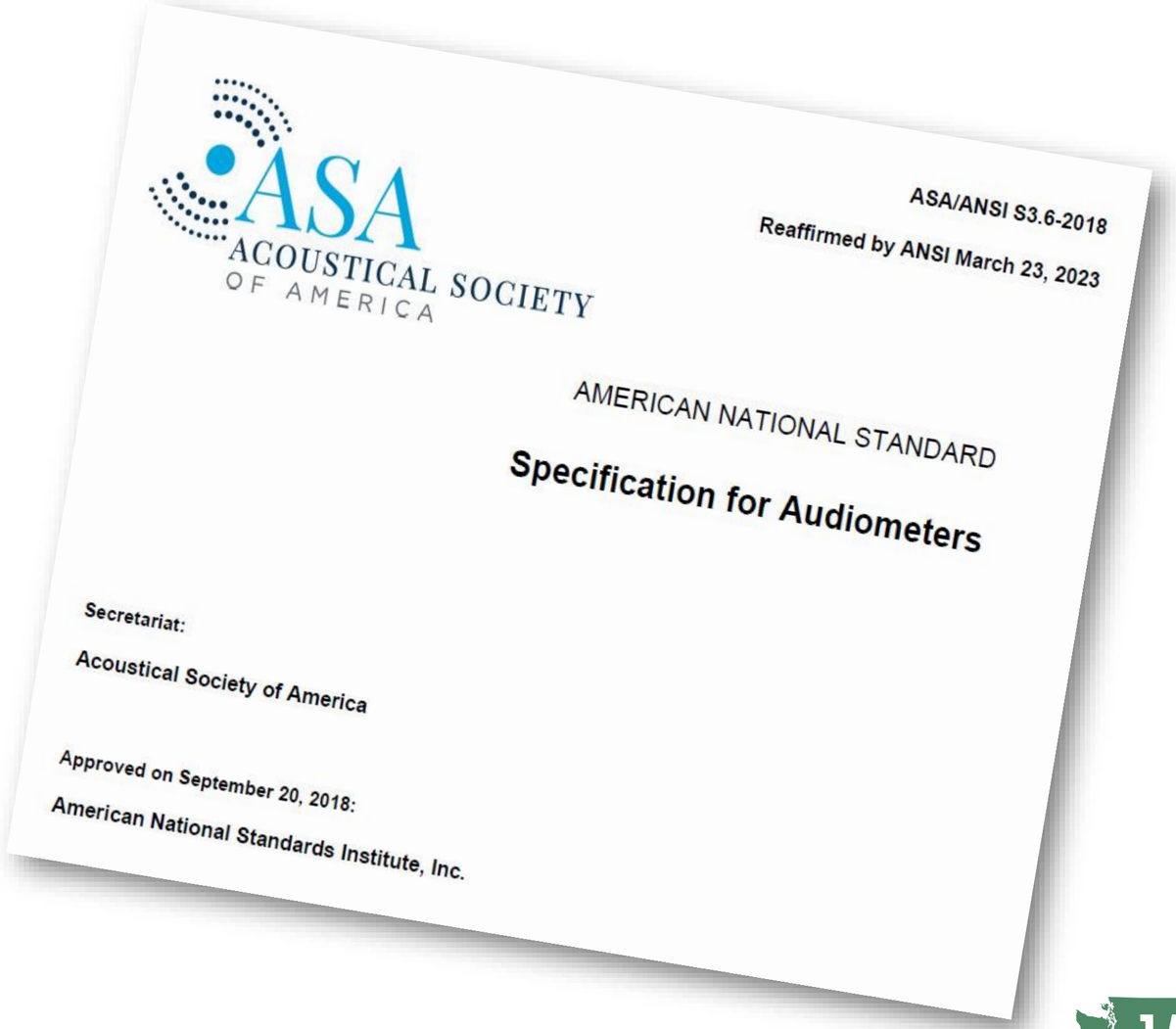
- Updating the American National Standards Institute reference in the rule
- Including OAE devices as an optional screening technology
- Adding definitions/abbreviations for the auditory screening rule sections
- Updating rule language for clarity and removing deficit-based terminology
- Rewording rule section titles to match the vision screening sections



Updating ANSI Standards in Rule

- Currently, WAC 246-760-030 references the 1996 American National Standards Institute (ANSI) standards for auditory screening equipment.

- **Proposed Changes:**
  Update this rule section to include the most recent standards (last updated in 2023).


ASA
ACOUSTICAL SOCIETY
OF AMERICA

ASA/ANSI S3.6-2018
Reaffirmed by ANSI March 23, 2023

AMERICAN NATIONAL STANDARD

Specification for Audiometers

Secretariat:

Acoustical Society of America

Approved on September 20, 2018:

American National Standards Institute, Inc.

Including OAE Devices

- Currently, the auditory screening sections of the rule only permit using pure tone audiometry/audiometers.

- **Proposed Changes:**
  Under WAC 246-760-030, add OAE devices as an *optional* screening tool. Include new language throughout the hearing screening sections regarding OAE screening procedures, rescreens, and referrals.

- **Considerations:**
  - Rule language should specify when OAEs may be used versus pure tone. (E.g., it is age, developmentally, and linguistically appropriate).
  - OAEs are a new screening tool for many districts; staff will need funding to purchase optional equipment and training for staff on how to use these devices.

Image from the National Center for Hearing Assessment and Management (NCHAM), Utah State University, Early Childhood Hearing Outreach (ECHO) Initiative: Early Childhood Hearing Screening | NCHAM (infanthearing.org)

Adding Definitions and Abbreviations

- Currently, WAC 246-760-010 only includes definitions, abbreviations, and acronyms for the vision screening sections of the rule.

- **Proposed Changes:**
  Add definitions/abbreviations for the auditory screening sections of the rule.
  Examples include:
  - ASA/ANSI Standards
  - Audiometer
  - Audiological evaluation
  - Auditory acuity
  - Calibrate
  - Otoacoustic emission (OAE) devices

Updating and Adding Language for Clarity and Inclusivity

- Currently, the auditory screening sections of the rule are not aligned with the vision screening sections.
- The rule currently doesn’t include language around students who may not need to be included in the hearing screens.
- Some sections of the rule regarding rescreening and referral procedures are vague and could benefit from additional clarity.
- Additionally, staff learned from conversations with people in the Deaf community that terminology like “loss,” “fail,” and “impairment” is deficit-based and does not reflect that children who are Deaf or Hard of Hearing are equal, healthy, and whole.

- **Proposed Changes:**
  - Amend auditory screening sections to better align with vision screening sections (e.g., add a new section specific to auditory screening, like WAC-760-070.)
  - Add language to clarify students who are not required to have hearing screens (students with prior hearing accommodations).
  - Specify the rescreening timeframe in WAC 246-760-050 from “within 6 weeks” to “within 2-6 weeks.”
  - Update rule language to remove terms around “pass/fail,” “impairment,” and “loss.”

Rewording Rule Section Titles

- Currently, titles for the auditory screening sections are phrased as questions; the vision screening sections are not.

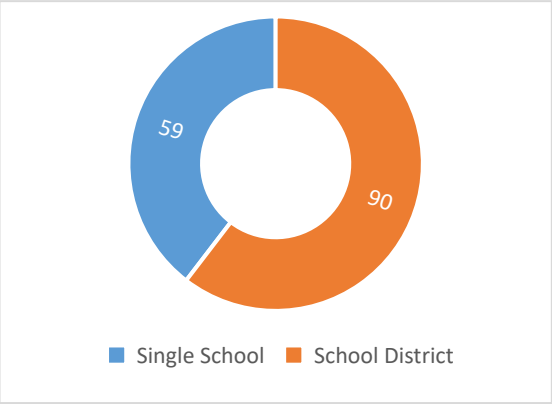
- **Proposed Changes:**
  - Update the auditory screening section titles to improve readability and align with the vision screening sections.

WASHINGTON STATE BOARD OF HEALTH

Washington State Board of Health (Board) School Hearing Screening Survey Summary

This is a summary of responses and themes from an anonymous survey that Board staff sent to school staff who oversee hearing screenings in their schools or school districts. The goal of this survey was to learn more about school screening programs in Washington and to get feedback about adding new optional screening technology. The comments have been grouped by survey questions, and staff have provided a summary of the important themes.

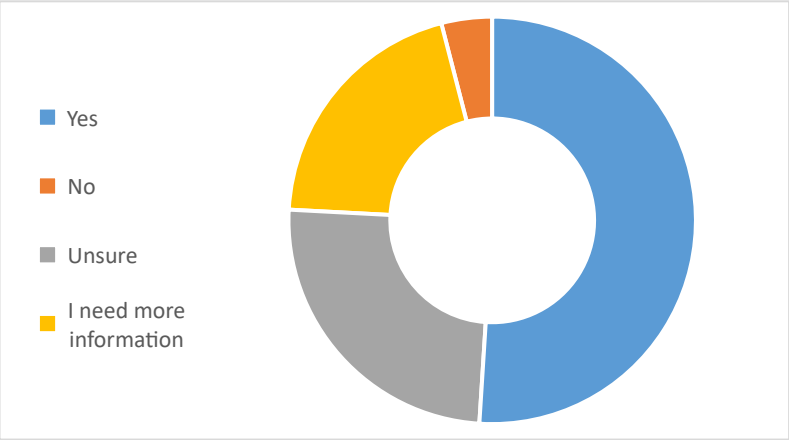
Disclaimer: There are duplicate responses from some schools and districts. This is because Board staff shared this survey widely and did not explicitly limit which staff could complete this survey. There are also variations in some of the duplicate responses. This could be because different people filled out the survey, and they may have different jobs or understood the questions in different ways. Board staff are sharing all survey answers in this summary, but please keep this in mind when reviewing the data.

Questions	Summary of Responses and Themes
Are you responding to this survey for a single school or a whole school district?	A total of 149 total survey responses were completed. Of these, 90 were filled out on behalf of a school district, while 59 were filled out for a single school or several schools.  Note: After removing duplicate responses, **there are 104 unique survey responses** (45 duplicates).
What school or school district do you work for?	Of the 104 unique survey responses… • 98 out of 295 Washington school districts are represented (~33% of districts). • A breakdown of responses by Educational Service Districts (ESDs) included:

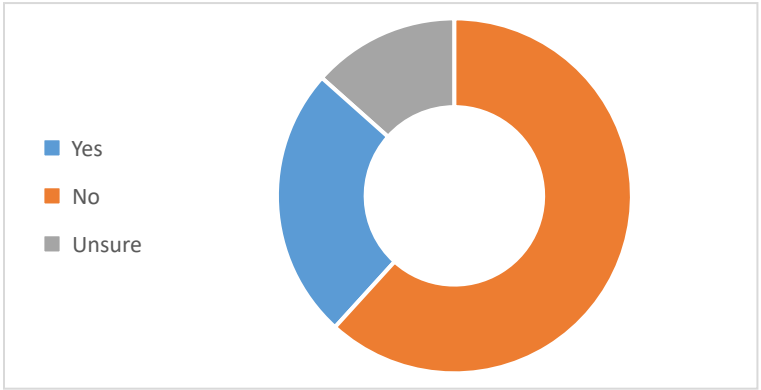
	- ESD 121 (Puget Sound): n=23 districts - ESD 189 (Northwest): n=13 - ESD 114 (Olympic): n=12 - ESD 101 (Northeast WA): n=10 - ESD 123: n=10 - ESD 171 (North Central): n=9 - ESD 105: n=8 - ESD 112: n=8 - ESD 113 (Capital Region): n=5 • 1 response was from a State Tribal Educational Compact School (STEC) • 3 responses were from charter schools • 2 responses were from private schools
WAC 246-760-020 allows schools to expand vision or hearing screenings to other grade levels if resources permit. Is your school or school district conducting screenings for additional grade levels outside of kindergarten, 1st grade, 2nd grade, 3rd grade, 5th grade, and 7th grade?	Most schools and districts reported that they only screen students at the grade levels required by the rules. However, 60 respondents mentioned that they also screen students at additional grade levels
If you expand hearing screenings to other grade levels, what other grade levels or students are you completing hearing screenings for?	Of the 60 respondents: • Many schools choose to screen 4th grade or other grade levels (e.g., 6th and 8th grade) because some schools are small, and adding another grade doesn't take much extra time. It can also be harder to figure out which students don't need to be screened, so screening all students is often easier. • Some respondents reported that they expand their screenings because they screen all students with IEPs (for initial evaluations or re-evaluations), students in special education programs, migrant students, students new to the school or district, and students with suspected hearing challenges (often at the request of a teacher, parent, speech-therapist, etc.). • A handful of respondents said they screen transitional kindergarten and preschool students. Some do this because they're unsure if it's required, while others have the resources or are smaller schools that can manage it.

Who conducts hearing screenings for your school or school district? (Select all that apply)	Most respondents reported that school nurses complete the hearing screenings for their school or district (n=127), followed by volunteer screening staff (n=58), audiologists (n=20), their local Lion's Club (n=18), and speech language pathologists (18). Additional screening staff include: • Health aides (medical assistants), health room coordinators, or other health room staff • Nursing students from a local college • Paraprofessionals • Paid or contracted screening teams or staff • School administrative staff • Family support specialists • School district staff trained by the Health Services Director and/or school nurses • Migrant health team • Parent volunteers or Local community club members • Partners from a local community clinic
Does your school or district student population include students who (select all that apply): • Have special learning, developmental sensory, behavioral, or other health needs? • Speak a primary language other than English (PLOTE)? • Are enrolled in an early learning program? • Additional student populations not mentioned?	Most respondents reported that they have students with special learning, developmental sensory, behavioral, or other health needs (n=142) or students who speak a PLOTE (n=133), followed by students enrolled in early learning (n=99), and additional students not mentioned (n=7). Additional students include: • Students who are home schooled, attend school online only, or are part-time students • McKinney Vento students • Students new to the district, or who recently immigrated to the U.S.

Do you have special practices or procedures you use to screen students enrolled in early learning programs, who speak a PLOTE, have special developmental or behavioral needs, etc.? If yes, please share.	<u>Use of Different Screening Tools and Methods:</u> • Many schools and districts already use Otoacoustic Emissions (OAEs) for screening students, particularly for students who cannot respond to pure tones or have developmental or behavioral needs. • Some districts use Conditioned Play Audiometry (CPA) or adapt screening methods to meet each student's needs. <u>Use of Language Supports</u>: • Many districts offer translation services, such as bilingual staff, interpreters, or translation apps (e.g., Google Translate), to help students who speak languages other than English (LOTE). • Picture prompts and communication cards are also used to help students understand the screening process • Some schools rely on Spanish-speaking staff, though this isn't always available in every district. <u>Flexible Approaches</u>: • Some districts adjust the screening setting to better suit students, like reducing distractions by screening in quiet, private areas or doing one-on-one screenings • In some cases, schools try to make screenings more interactive or use demonstrations to ensure students understand the process. <u>Special Considerations for Students with Developmental or Behavioral Needs:</u> • Special education staff, teachers, and paraeducators often assist during screenings to help students with behavioral or developmental needs. • Several districts collaborate with audiologists or school nurses for specialized screenings. <u>Challenges and Limitations</u>: • Many districts face challenges in screening due to limited resources (e.g., not enough bilingual staff, inadequate equipment, or limited time). • In some cases, screening may not be completed for students with significant developmental or behavioral needs, especially if standard screening tools are not effective or if students cannot tolerate the process. • Some districts rely on referrals and follow-ups for students who are unable to complete the screening, either due to their developmental needs or the lack of access to language interpretation and translation.

The Board is considering whether to add otoacoustic emission (OAE) screening technology as an optional screening technology in chapter 246-760 WAC. This optional screening technology could be used to screen children who are unable to participate in pure tone screening (e.g., due to age, developmental ability, or primary language). Would your school support this addition to the rule?	Most respondents said yes (51%), their school would support this addition, while some were unsure (25%) or needed more information (20%). 4% of respondents (n=6) said they would not be in support. 
Please explain your choice (e.g., yes - support optional screening, no - not support, unsure, or you need more information).	Key themes included: <u>General Support for OAE Screening as an *Option*</u>: • Many respondents support the use of OAE (Otoacoustic Emissions) screenings as an *optional* tool, especially for students who cannot participate in traditional pure tone testing (e.g., non-verbal students, those with developmental disabilities, or language barriers). • OAEs are seen as beneficial for students who struggle with or are unable to follow instructions in traditional screenings, such as young children, students with behavioral or developmental disabilities, or those with special needs. OAE screening is viewed as particularly valuable for students with disabilities, those who are non-verbal, or students with developmental or sensory challenges. • Respondents highlighted that *OAE technology* could reduce the number of *unnecessary referrals* to healthcare providers, as it would help screen students who would otherwise not pass the standard tests. <u>Concerns about Costs and Funding:</u> • Cost of Equipment: Many respondents mentioned concerns about the *high cost* of OAE devices and disposable components (e.g., ear tips). Some noted that their

	districts are unlikely to afford the equipment, and funding would need to be provided for implementation. • Ongoing Expenses: There is concern about the *long-term costs*, including maintenance and replacement parts (e.g., ear tips), which could place additional strain on already limited school budgets. <u>Need for Further Information:</u> • Several responses indicated a need for more *information on the cost*, *training requirements*, and *specific guidelines* for using OAE screenings in school settings. • There were also concerns about *staffing*—who would conduct the screenings (e.g., nurses, volunteers), the training required, and the impact on staff workloads. <u>Current Use and Positive Experiences:</u> • Some districts are already using OAE screenings, particularly for preschool, special education, or non-verbal students, and have reported positive outcomes. • Respondents who have used OAE screening previously highlighted its utility in screening *preschoolers* and students who cannot participate in traditional screenings due to behavioral, sensory, or developmental challenges. <u>Concerns About Unfunded Mandates and Additional Burdens:</u> • There were multiple concerns about the potential for OAE screening to become an *unfunded mandate* that would add to the workload of schools with limited resources. • Some expressed reluctance to adopt new equipment unless it was provided, maintained, and managed by a central authority (e.g., the state), without requiring additional staffing or financial burden on schools. <u>Opinions on “Optional” Screening Becoming “Mandatory”:</u> • There is general support for OAE screening as a *voluntary* tool, but several respondents expressed concern about the potential for it to become mandatory, which could increase the financial burden on districts. <u>Accessibility of OAEs and Usability Concerns:</u> • Some respondents questioned whether the OAE device would be practical in terms of *ease of use*, *training*, and *space requirements* in schools. • There was uncertainty about how well students would tolerate the ear probes and whether the device could be used effectively in diverse school environments.

Do you already have access to an OAE screener at your school or school district?	Many respondents reported that they do not currently have access to an OAE screener (62%). About a quarter of respondents said they already have access to an OAE within their district or school (n=37), while 13% are unsure. 
What resources would you need if OAE screening was added to the rule as an option, and you'd like to use this as an option in your screening program? (Select all that apply) • One-time funding to purchase new equipment? • Ongoing funding for equipment upkeep and maintenance? • Staff training for the new technology? sensory, behavioral, or other health needs? • My school or school district already has access to an OAE screener. • Additional resources?	Most respondents reported that staff training (n=118) and funding – one-time (n=98) and ongoing (n=109) would be needed to add OAE as an optional screening tool in their program. Additional considerations included: • Updated reporting and charting for the additional screening results. • Information to provide to families about the equipment, and its efficacy (if they were to ask for this information).
Is there anything about the Board's hearing screening rule that we didn't ask you about in this survey that you'd like for Board staff to know?	Responses and key themes included: • "Any suggestions for getting parents/guardians to follow through with professional testing? We don't have much success with referrals." • "Language barrier or learning differences should never be the reason a student fails their hearing screenings." • Questions around how much time would be added using OAE screeners, whether OAEs are a screening or a diagnostic tool or medical procedure, and if certain or credentialed staff are needed to provide OAE screening.

	• Suggestions and asks to work closely with audiologists, especially educational audiologists when drafting the proposed updates to the rule. • The importance of training and the need to give plenty of advanced notice to schools and districts about any rule updates. • "When SBOH changes or adds a new requirement, it takes time to change all of our documentations, letters, processes, training of staff, visual aids, number of nurses and volunteers needed, and some unknowns. Please do another survey AFTER you finalize the rules to ask about any hurdles to implementation." • Questions around what evidence there is to support the grade levels required for screenings in the rule because these annual screenings are expensive and time intensive. • Re-emphasis on the need for additional funding and staff training, even with adding an optional screening tool. • What is the alternative if the Board doesn't plan to add OAE as an optional technology – how do they propose screening students who can't respond to the screening prompts or raise their hand. • Clear guidelines and guidance around screening (ages, types of acceptable screenings, etc.) would be helpful. • Hearing screening referrals are typically low – for some staff, they've never identified atypical hearing in a child that wasn't already diagnosed by a health care provider. • "The problem that occurs sometimes while screening with an OAE is finding a quiet enough space in the preschool setting, otherwise it's been a great tool to use for preschool age kiddos." • "Our district is understaffed with SLPs, the time required to conduct screenings is massive. It would be helpful if this task was completed by outside agencies or doctors." • "Could we add a screening at some time during high school?" • "With the addition of a possible OAE screening option, would that lead the Board to broaden required grades to include preschool and early learning programs?"

From: Washington State Board of Health wsboh@public.govdelivery.com

Subject: Washington State Board of Health ASL Video Announcement – Auditory Screening Rulemaking Project/Anuncio de la Junta de Salud del Estado de Washington - Sobre el lenguaje de señas estadounidense en vídeo sobre la reglamentación de los exámenes auditivos

Please do not respond directly to this message as this inbox is not monitored. Please reach out to us at wsboh@sboh.wa.gov for any questions or to submit public comment.

Washington law requires the Washington State Board of Health (Board) to set standards for hearing screenings for children attending Washington K-12 schools. These standards aim to identify students with hearing difficulties and refer them to appropriate follow-up care.

Recently, a community group asked the Board to consider updating its hearing screening standards, also known as auditory screening, to include another screening technology. The Board accepted the request and is reviewing potential updates to its standards through the rulemaking process.

The Board usually shares information about rulemaking through email, website updates, and social media posts. While planning for this project, staff noted that written English and American Sign Language (ASL) are different languages with their own vocabulary and grammar. Communications in written English are not always the most accessible way to reach the Deaf community.

To create more inclusive communications, staff collaborated with a highly qualified Deaf Interpreter (DI) to produce short informational videos in ASL. These videos include details about the project and ways for people who are Deaf or Hard of Hearing to get involved.

These videos (in ASL) are available on the Board's YouTube channel and rulemaking webpage. Please feel free to share them widely.

For questions, you can contact Molly Dinardo at molly.dinardo@sboh.wa.gov

Check out our Auditory Screening Rulemaking Announcement

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Por favor, no responda directamente a este mensaje ya que esta bandeja de entrada de correo electrónico no está monitoreada. Comuníquese con nosotros en wsboh@sboh.wa.gov para cualquier pregunta que pueda tener o para enviar sus comentarios públicos.

La legislación de Washington requiere que la Mesa Directiva de Salud del Estado de Washington (Mesa Directiva) establezca estándares para las evaluaciones auditivas de los niños que asisten a las escuelas de Washington, desde el jardín de infantes hasta el 12.º grado. Estos estándares tienen como objetivo identificar a los estudiantes que tienen discapacidades auditivas y derivarlos a la atención de seguimiento adecuada.

Hace poco, un grupo comunitario le pidió a la Mesa Directiva que considere actualizar los estándares de evaluación auditiva para incluir otra tecnología de evaluación. La Mesa Directiva aceptó la solicitud y está revisando las posibles actualizaciones de sus estándares mediante el proceso de creación de normas.

Por lo general, la Mesa Directiva comparte información sobre la normativa a través de correos electrónicos, actualizaciones en el sitio web y publicaciones en redes sociales. Durante la planificación de este proyecto, el personal observó que el inglés escrito y el lenguaje de señas americano (ASL, por su sigla en inglés) son idiomas diferentes con su propio vocabulario y gramática. Las comunicaciones en inglés escrito no siempre son la forma más accesible de llegar a la comunidad de personas sordas.

Para crear comunicados más inclusivos, el personal trabajó con un intérprete de personas sordas (DI, por su sigla en inglés) muy competente para producir videos cortos informativos en ASL. Estos videos contienen información sobre el proyecto y sobre cómo pueden participar las personas sordas o con discapacidad auditiva.

Estos videos (en ASL) están disponibles en el canal de YouTube de la Mesa Directiva y en la página web de creación de normas (solo en inglés). No dude en compartir esos recursos.

Si tiene alguna pregunta, puede comunicarse con Molly Dinardo por correo electrónico a molly.dinardo@sboh.wa.gov.

Versión del guion del video en español.

Mire nuestro Anuncio sobre la normativa sobre evaluaciones auditivas

RCW 28A.210.020

Visual and auditory screening of pupils—Rules.

Every board of school directors shall have the power, and it shall be its duty to provide for and require screening for the visual and auditory acuity of all children attending schools in their districts to ascertain which if any of such children have defects sufficient to retard them in their studies. Visual screening shall include both distance and near vision screening. Auditory and visual screening shall be made in accordance with procedures and standards adopted by rule of the state board of health. Prior to the adoption or revision of such rules the state board of health shall seek the recommendations of the superintendent of public instruction regarding the administration of visual and auditory screening and the qualifications of persons competent to administer such screening. Persons performing visual screening may include, but are not limited to, ophthalmologists, optometrists, or opticians who donate their professional services to schools or school districts. If a vision professional who donates his or her services identifies a vision defect sufficient to affect a student's learning, the vision professional must notify the school nurse and/or the school principal in writing and may not contact the student's parents or guardians directly. A school official shall inform parents or guardians of students in writing that a visual examination was recommended, but may not communicate the name or contact information of the vision professional conducting the screening.

[**2016 c 219 § 1**; **2009 c 556 § 18**; **1971 c 32 § 2**; **1969 ex.s. c 223 § 28A.31.030**. Prior: **1941 c 202 § 1**; Rem. Supp. 1941 § 4689-1. Formerly RCW **28A.31.030**, **28.31.030**.]

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 - 2025

WAC 246-370 School Environmental Health and Safety

School Environmental Health and Safety Rule Project 2024 - 2025

WAC 246-370 Chapter Comparison

Approved language for 246-370	Previous Section Numbering (246-366 or 366A)
001 Purpose	366-005 Purpose
005 Definitions	366-010 Definitions
010 Applicability	366-020 Substitutions
015 Guidance	
020 Site Assessment	366-030 Site approval
030 Construction Plan Review New, Alterations, and Portables	366-040 Plan review and inspection of schools
040 Routine Inspection	
050 General Building Requirements	366-050 Buildings
060 Showers and Restrooms	366-060 Plumbing, water supply and fixtures 366-070 Sewage disposal
070 Ventilation	366-080 Ventilation
080 Indoor Air Quality	New
090 Temperature	366-090 Heating 366-100 Temperature control
100 Noise	366-110 Sound control
110 Lighting	366-120 Lighting
120 Injury Prevention	366-140 Safety
130 Imminent Health Hazard	New
140 Playgrounds	366A-150 Playgrounds—Construction and installation requirements 366A-155 Playgrounds—Operation and maintenance requirements
150 Specialized Rooms	366A-160 Laboratories and shops—Construction requirements 366A-165 Laboratories and shops—Operation and maintenance requirements
160 Variances and Emergency Waivers	366-150 Exemption
170 Severability	366-160 Severability
180 Appeals	366A-180 Appeals

WAC 246-370-001 Purpose

(1) The purpose of this chapter is to set minimum environmental health and safety standards for school facilities operated for the primary purpose of providing education.

WAC 246-370-005 Definitions

(1) "**Air cleaning technologies**" means technologies used to reduce the levels of air contaminants in indoor air.

(2) **"Air contaminant"** means pollutants in the air that could, depending on dose and circumstances, cause adverse health impacts.

(3) **"Carbon Filter**" means a type of filter that uses activated carbon or charcoal to absorb air contaminants.

(4) **"Decibel (dB)"** means a standard unit of measurement of sound pressure.

(5) **"Decibel, A-weighted (dBA)"** means a decibel measure that has been weighted in accordance with the A-weighting scale. The A-weighting adjusts sound level as a function of frequency to correspond approximately to the sensitivity of human hearing.

(6) "**Department"** refers to the Washington State Department of Health.

(7) "**Emergency washing facilities**" means emergency washing facilities such as emergency showers, eyewashes, eye/face washes, hand-held drench hoses, or other similar units.

(8) "**Emissions**" mean substances released into the air, including gases and particles, from various sources.

(9) **"Equivalent Continuous Sound Level" or "Leq"** means the sound pressure level of a noise fluctuating over a period of time, expressed as the amount of average energy.

(10) **"Foot candle"** means a unit of measure of the intensity of light falling on a surface, equal to one lumen per square foot.

(11) **"HEPA filter**" means a high-efficiency particulate air filter, a type of pleated mechanical air filter that can theoretically remove 99.97% of particles with a size of 0.3 microns.

(12) "**Imminent health hazard**" means a significant threat or significant danger to health or safety that requires immediate action to prevent serious illness, injury, or death.

(13) **"Integrated pest management"** means a program that reduces sources of food, water, and shelter for pests by using the least toxic pest controls when necessary.

(14) **"Local board of health"** means the county or district board of health as defined in RCW 70.05.010(3).

(15) "**Local health officer**" means legally qualified physician who has been appointed as the health officer for the city, town, county, or district public health department as defined in RCW 70.05.010(2) or their authorized representative.

(16) "**New construction**" means new buildings or structures, including construction of additions to existing school facilities and reconstruction or retrofitting of an existing building not originally

intended for use as a school facility. New construction does not include reconstruction of an existing school facility.[1]

(17) **"Noise abatement"** means measures taken to reduce unacceptable sounds or vibrations.

(18) **"Noise criterion"** means a single number for rating the sound quality of a room by comparing actual or calculated sound level spectra with a series of established octave band spectra.

(19) **"Noise criterion 35 (NC35)"** means the curve for specifying the maximum permissible sound pressure level for each frequency band.

(20) "**Portable**" means any school building with a prefabricated structure that can be transported and installed on-site to provide additional educational space.

(21) "**Preschool**" means an educational establishment or learning space offering early childhood education to children not old enough to attend kindergarten.

(22) "**Readiness Plan**" means a written guide to ensure the health and safety of the occupants of a school facility in the event of a particular hazard, such as extreme heat or wildfire smoke.

(23) "**School**" means any public institution of learning where the primary purpose is educational instruction for children in any grade from kindergarten through grade twelve and related activities by the public school as defined in RCW 28A.150.010 and any private school or private institution regulated by chapter 28A.195 RCW.

(24) "**School facility**" means all buildings and land intended primarily for student use including, but not limited to portables, sports fields, playgrounds, classrooms, and common areas.

(25) "**School official**" means a member of the district or school staff who has the authority to make decisions on behalf of the district or school to maintain and improve environmental health and safety within the limitations of this rule.[1]

(26) "**Source capture system**" means a mechanical exhaust system designed and constructed to capture air contaminants at their source and release air contaminants to the outdoor atmosphere.

(27) "**Specialized room**" means a space or room that has a specific function that utilizes equipment, furniture, or supplies not found in a standard room. This may include but is not limited to, a career and technical education room, laboratory, art room, or health room.

(28) "**Stationary machinery**" means equipment that is designed to be installed in a fixed location and does not require intermittent movement to service different needs. [2]

(29) "**Total ventilation**" means the portion of air that is supplied to a designated zone from the outdoors, plus any filtered and recirculated air.

[1] The committee will review and vote on this definition on December 16, 2024.
[2] The committee will review and vote on this definition on December 16, 2024.

WAC 246-370-010 Applicability

(1) Chapter 246-370 WAC applies to all facilities operated for the primary purpose of providing education, including those primary and secondary school facilities that offer preschool education or transition services except:

(a) Any facility or part of a facility that is licensed by the department of children, youth, and families under Title 110 WAC;

(b) Private residences used for home-based instruction as defined by RCW 28A.225.010(4);

(c) Facilities hosting educational programs where educational instruction is not a primary purpose, including, but not limited to, detention centers, jails, hospitals, mental health units, or long-term care facilities;

(d) Private facilities where tutoring is the primary purpose;

(e) Public or private postsecondary education facilities providing instruction to students enrolled in secondary school; and

(f) State-tribal education compact schools established under chapter 28A.715 RCW.

(2) Additional environmental health and safety rules that apply to school facilities include, but are not limited to:

(a) Facility and equipment sanitation, food preparation, food storage, and food temperature control must follow the requirements of chapter 246-215 WAC;

(b) Food service workers, including contracted staff and volunteers, must maintain a current food worker card per chapter 246-217 WAC;

(c) Water Recreation Facilities or aquatic venues must follow the requirements of chapters 246-260 and 246-262 WAC, as applicable;

(d) Supply sewer and liquid waste disposal supplied to the school facility that:

(i) Is connected to a municipal sewage disposal system according to chapter 173-240 WAC, if available; or

(e) Is connected to an on-site sewage disposal system designed, constructed, and maintained as required by chapters 246-272A or 246-272B WAC, and local ordinances;

(f) The installation and maintenance of carbon monoxide detection and alarms in mechanical rooms and occupied zones as set forth in chapter 51-54A-0915 WAC;

(g) Potable water supplied to the school facility that:

(i) Meets the provisions of chapters 246-290 or 246-291 WAC;

(ii) Meets the requirements of the uniform plumbing code set forth in chapter 51-56 WAC; and

(iii) Follow the requirements for lead in drinking water set forth in RCW 43.70.830 through 43.70.845 if the facility was built or the plumbing was replaced before 2016.

(3) These rules are not intended to replace or supersede the department of labor and industries' authority and jurisdiction under Title 296 WAC over employee safety and health.

(4) These rules are not intended to replace building code council requirements under Title 51 WAC. In the event this chapter is more stringent to protect health and safety it may supersede Title 51 WAC.

(5) If the local permitting jurisdiction received a complete building permit application for school construction before the effective date of this chapter, the construction-related requirements of chapter 246-366 WAC apply.

WAC 246-370-015 Guidance

(1) The department, in cooperation with the state superintendent of public instruction, shall review potentially hazardous conditions in schools which are in violation of good safety practices and jointly prepare a guide for use during routine school inspections that:

(a) Recommends corrective action to remediate violations of good safety practices;

(b) Includes recommendations for safe facilities and safety practices; and

(c) Is reviewed and updated every five years.

WAC 246-370-020 Site Assessment

(1) A local health officer shall conduct or require a site assessment when a school district is planning:

(a) To construct a new school facility on a site that was previously undeveloped or developed for other purposes; or

(b) To convert an existing structure for primary use as a school facility.

(2) A local health officer may conduct or require a site assessment when a school district is planning to construct:

(a) A new school facility on an existing school site; or

(b) An addition to an existing school facility.

(3) A site assessment must include:

(a) A Phase 1 Environmental Site Assessment (ESA) that meets the requirements of the American Society for Testing and Materials (ASTM) Standard #1527-21 (published December 2021);

(b) Sampling and analysis of potential contaminants if the Phase 1 ESA indicates that hazardous materials may be present. Sampling and analysis must comply with the applicable rules of the Washington state department of ecology, chapter 173-303-110 WAC; and

(c) A noise assessment that measures noise from all sources during the hours that school is normally in session.

(i) The noise must not exceed:

(A) An hourly average of 55 dBA or the mean sound energy level for a specified time in Leq 60 minutes; and

(B) A maximum sound level, recorded during a specified time measured as Lmax, of 75 dBA during the time of day the school is in session.

(4) A school official shall:

(a) Notify the local health officer within 90 days of starting:

(i) The preliminary planning for school construction that requires a review and approval of a site assessment by a local health officer under subsection (1) of this section, or

(ii) The preliminary planning for school construction under subsection (2) of this section to determine if a site assessment is required.

(b) Consult with the local health officer throughout the plan development phase regarding the scope of the site assessment and the timeline for completion of the site assessment.

(c) Submit the written report to the local health officer assessing the potential impact of health and safety risks presented by the proposed site, including, but not limited to the following:

(i) The findings and results obtained under subsection (3) of this section;

(ii) An analysis of the findings;

(iii) If a site exceeds sound levels under subsection (3)(c)(i), the school official must include a plan for noise reduction in the new construction proposal;

(iv) A description of any mitigation proposed to address identified health and safety risks present at the site; and

(v) Any site assessment-related information requested by the local health officer to complete the site assessment review and approval process.

(d) Obtain the site review and written site approval from the local health officer when required under subsection (1) or (2) of this section.

(5) The local health officer shall:

(a) When notified by a school official, conduct an inspection of the proposed site;

(b) Review the site assessment for environmental health and safety risk;

(c) For site assessments according to subsection (1) of this section, provide written approval, describe site deficiencies needing mitigation to obtain approval, or deny use of the proposed school facility site within 60 days of receiving a complete request unless a school official and the local health officer agree to a different timeline; and

(d) For site assessments according to subsection (2) of this section, provide written approval or describe site deficiencies needing mitigation to obtain approval of the proposed school facility site within 60 days of receiving a complete request unless the school officials and the local health officer agree to a different timeline.

(6) If a written site assessment request from a school official is received by the local health officer before the effective date of this section, the site assessment requirements of chapter 246-366 WAC apply unless otherwise specified in this chapter.

WAC 246-370-030 Construction Plan Review New, Alterations, and Portables

(1) The following school construction projects must be reviewed and approved by the local health officer:

(a) Construction of a new school facility, playground, or specialized room;

(b) Establishment of a school in all or part of any existing structure previously used for another purpose;

(c) Additions or alterations consisting of more than 5,000 square feet of floor area or more than 20 percent of the total square feet of an existing school facility, whichever is less;

(d) Alteration of a playground or specialized room; and

(e) Installation or construction of a portable classroom.

(2) A school official shall:

(a) Consult with the local health officer at the 50 percent design development stage for school construction projects plans to determine if the project requires construction review.

(i) Provide additional documents requested by the local health officer, which may include, but are not limited to, written statements signed by the project's licensed professional engineer verifying that design elements comply with requirements specified by these rules; and

(ii) Consult with the local health officer to determine whether additional construction project review is required to ensure that the project meets the requirements of these rules;

(b) Obtain written approval from the local health officer for the construction project before starting construction.

(i) If the school official meets the requirements of subsection (2)(a) but the local health officer does not meet the requirements of subsection (3), the school official may proceed with their scheduled construction timeline.

(c) Request a preoccupancy inspection by the local health officer to ensure the correction of any imminent health hazards before allowing occupancy at the school facilities; and

(d) Notify the local health officer at least five business days before a desired preoccupancy inspection.

(3) The local health officer shall:

(a) Respond to a request to consult with a school official within 15 business days of receipt;

(b) Consult with a school official to determine what is required for plan review and approval;

(c) Review construction project plans at the 50 percent design development stage to confirm if a construction review and approval is needed to meet the health and safety requirements of this chapter;

(d) Consult with a school official when additional reviews are required;

(e) Identify and request any additional documents required to determine compliance with requirements outlined in this chapter, if construction review is necessary;

(f) Provide written approval within 60 days of receiving the 100 percent design development for the construction design plans or provide a written statement describing construction project plan deficiencies that need to change to obtain approval. This timeline may be altered if mutually agreed upon by the school official and the local health officer; and

(g) Conduct inspections:

(i) In a coordinated effort with the on-site project manager or other appropriate person identified by a school official;

(ii) At any point during the construction period to verify compliance with the requirements of this chapter;

(iii) Before the completed construction project is occupied and not more than five business days after the date requested by a school official or as otherwise agreed to by the school official and the local health officer;

(A) If an imminent health hazard is identified, a solution must be identified and agreed to by the school official, the local health officer, and the local building official and implemented by school officials before the affected portion of the building is occupied.

(B) If other conditions of noncompliance with this chapter are identified, provide the school official with a written list of items and consult in developing a correction schedule based on the level of risk to health and safety.

(iv) To confirm satisfactory correction of the items identified under (iii) of this subsection.

WAC 246-370-040 Routine Inspection

(1) The local health officer shall:

(a) Conduct an environmental health and safety inspection of each school facility within their jurisdiction every three years, prioritizing areas for emphasis based on risk.

(b) Notify school officials at the time of discovery, or immediately following the inspection, if conditions that pose an imminent health hazard are identified and follow the imminent health hazard requirements set forth in WAC 246-370-130.

(c) Consult with school officials upon completion of the inspection about findings and recommended follow-up actions and, if necessary, collaborate with school officials to develop a remediation schedule.

(d) Issue a final inspection report, within 60 days following an inspection. The local health officer may establish an alternate timeline for issuing the final inspection report when agreed upon in consultation with school officials. The report must include inspection findings related to this chapter and any required remediation.

(e) Confirm, as needed, that corrections are accomplished.

(2) The local health officer may:

(a) Adjust the inspection interval of the schools within their jurisdiction if:

(i) The local health officer develops a written risk-based inspection schedule, that is uniformly applied throughout the jurisdiction based on credible data or local risk factors.

(A) The time between routine inspections may not exceed five years.

(B) The time between routine inspections may not be more frequent than one year.

(b) A school official or qualified designee may conduct the required additional inspections under a program approved by the local health officer, if the program includes provisions for:

(i) Assuring that the school official or designee conducting the inspection has attended training in the standards, techniques, and methods used to conduct an environmental health and safety inspection;

(ii) Completing a standardized checklist at each inspection; and

(iii) Providing a written report to the local health officer detailing the findings of the inspection, within 60 days of completing the inspection.

WAC 246-370-050 General Building Requirements

A school official shall ensure that school facilities:

(1) Are clean and in good repair;

(2) Do not attract, shelter, or promote the propagation of insects, rodents, bats, birds, and other pests of public health significance;

(3) Have floors that suit the intended use, allow easy cleaning, and dry easily to inhibit mold growth and mitigate fall risks;

(4) Has vacuum breakers or backflow prevention devices installed on hose bibs and supply nozzles used to connect hoses or tubing to housekeeping sinks;

(5) Provide proper storage for student jackets or backpacks, play equipment, and instructional equipment to mitigate trip, pest, or other public health hazards; and

(6) Provide toilet and handwashing facilities accessible for use during school hours and scheduled events that:

(a) Provide handwashing facilities with access to:

(i) Soap;

(ii) Fixtures that maintain water temperatures between 85- and 120-degrees Fahrenheit;

(iii) With single-use or disposable towels or blower or equivalent hand-drying device; and

(b) Provide toilet paper.

WAC 246-370-060 Showers and Restrooms

(1) When new installation or renovation of an existing shower or restroom facility is planned, school officials shall:

(a) Consult with the local health officer to determine if a construction review and plan approval is required.

(b) Shower facilities must:

(i) Automatically maintain hot water between 100° F and 120° F;

(ii) Meet the requirements of the uniform plumbing code set forth in chapter 51-56 WAC;

(iii) Contain floor surfaces in shower areas that are water-impervious, slip-resistant, and sloped to floor drains. Walls must be water-impervious up to showerhead height. Upper walls and ceilings must have an easily cleanable surface;

(c) Provide shower facilities for grades nine and above for classes in physical education and for team sports that:

(i) Meet a ratio of one shower per 15 individuals of each gender participating in physical education classes or team sports;[3]

(ii) If provided, have drying areas adjacent to showers and locker or dressing rooms. Walls and ceilings must have an easily cleanable surface and floor surfaces must be water impervious, slip-resistant, and sloped to floor drains;

(iii) When drying areas are not provided, locker or dressing room floor surfaces must be water-impervious, slip-resistant, and sloped to floor drains; and

(iv) Provide locker or dressing rooms adjacent to showers or drying rooms. Walls and ceilings must have an easily cleanable surface. When drying areas are provided, floor surfaces in locker or dressing rooms must be appropriate for the intended use, easily cleanable and dryable to effectively inhibit mold growth.

(d) Provide restrooms:

(i) With handwashing fixtures that automatically maintain water between 85° F and 120° F;

(ii) At a ratio of one toilet per 15 individuals with up to 10 percent of the toilet fixtures being substituted with urinals;[4]

(iii) Meet the requirements of the uniform plumbing code set forth in chapter 51-56 WAC

(iv) That contain water-impervious floor surfaces that are slip-resistant and sloped to floor drains;

[3] Per L&I shower requirements for employees WAC 296-800-23065 is 10 showers per gender. 1:15 is per the building code of 1 fixture per every 15 people.

[4] Per L&I specs for # of toilets in WAC 296-800-23020.

(v) With walls that are water-impervious up to water splash height. Upper walls and ceilings must have an easily cleanable surface; and

(vi) With soap and single-use or disposable towels or blower or equivalent hand-drying device.

(2) If a new installation or renovation of an existing shower or restroom facility requires local health officer review and approval, the local health officer shall follow the construction plan review requirements for new construction or alterations set forth in WAC 246-370-030.

WAC 246-370-070 Ventilation

A school official shall ensure a school facility:

(1) That is permitted as new construction after the effective date of this section, provides filtered outdoor and recirculated air supplies in schools when occupied at:

  (a) Outdoor ventilation rates as set forth in WAC 51-52-0403 and at least 21 cubic feet per minute per person; and

  (b) Particulate filtration as set forth in WAC 51-52-0605 including a facility that has small, ducted air handlers and ventilation systems.

(2) Permitted or constructed before the effective date of this section supplies filtered and recirculated air from the existing ventilation system, if feasible, that provides at least:

  (a) Outdoor ventilation rate as set forth in WAC 51-52-0403; and

  (b) Particulate filtration as set forth in WAC 51-52-0605 including a facility that has small, ducted air handlers and ventilation systems.

(3) Operates and maintains the ventilation system by, at minimum, performing routine ventilation system inspections, and replacing filters as needed to achieve required ventilation flow rates;

(4) Limits air cleaning technologies to mechanical air cleaners that only use physical filtration, such as HEPA and carbon filters, unless the local health officer approves an alternative air cleaning technology.

(5) Provides adequate ventilation for specialized rooms as set forth in WAC 246-370-150.

WAC 246-370-080 Indoor Air Quality

A school official shall:

(1) Control sources of air contaminants by:

(a) Excluding sources of potential air contaminants from a school facility; or

(b) Providing a space with appropriately used and maintained ventilation to minimize student exposure to potential air contaminants;

(2) Develop and implement a plan to test for radon every five years in regularly occupied areas on or below ground level;

(3) Prohibit the use of air fresheners, candles, or other products that contain fragrances;

(4) Physically contain construction activities that generate emissions or conduct construction at times that minimize student exposure;

(5) Promptly control sources of moisture and remediate mold using measures to minimize occupant exposure to mold and chemicals used during the remediation process;

(6) Ensure the implementation of a written indoor air quality plan within five years of the effective date of this section that includes:

(a) Identified areas of indoor air quality concerns and develop preventative measures to address the concerns;

(b) A schedule to perform routine inspections of heating, ventilation, and cooling systems to ensure systems are operating within intended parameters of this rule; and

(c) An integrated pest management plan.

WAC 246-370-090 Temperature

(1) A school official shall ensure the development and implementation of an extreme temperature readiness plan for non-specialized rooms when:

(a) A school facility is occupied by students and:

(i) Classroom temperatures are outside of the range of 65 degrees – 79 degrees Fahrenheit; or

(ii) Hallways and common area temperatures are outside of the range of 60 degrees – 79 degrees Fahrenheit.

(2) A school official may consult with a local health officer to develop an extreme temperature readiness plan.

WAC 246-370-100 Noise

A school official shall ensure:

(1) In new construction:

(a) Construction plans that include designs for ventilation equipment or other equipment that will contribute to mechanical noise sources in a classroom must include designs that ensures that the background sounds conform to a noise criterion curve or equivalent not to exceed NC-35. The school official shall certify equipment and features are installed according to the approved plans.

(b) The actual background noise at any student location within a newly constructed classroom does not exceed 45 dBA (Leqx) and 70 dB(Leqx) (unweighted scale) where x is thirty seconds or more. The health officer shall determine compliance with this section when the ventilation system and the ventilation system's noise generating components, e.g., condenser, heat pump, etc., are in operation.

(c) The maximum ambient noise level in specialized rooms shall not exceed 65 dBA when all fume and dust exhaust systems are operating.

(2) Portable classrooms constructed before January 1, 1990, moved within the same school property or the same school district, are exempt from the requirements of this section if the portable classrooms:

(a) Do not alter the noise abatement features;

(b) Do not increase noise-generating features;

(c) Were previously used for classroom instruction;

(d) Do not change ownership; and

(e) Are located on a site that meets the noise assessment requirements set forth in WAC 246-370-020(3)(c).

(3) The maximum noise exposure for students in classroom shall not exceed the levels specified in Table 1.

(4) That activities that expose students to sound levels equal to or greater than 115 dBA are prohibited.

(5) That students are provided and required to use personal protective equipment where noise levels exceed those specified in Table 1. Personal protective equipment must reduce student noise exposure to comply with the levels specified in Table 1.

Table 1 Maximum noise exposures permissible	
Duration per day (hours)	**Sound Level (dBA)**
8	85
6	87
4	90
3	92
2	95
1-1/2	97
1	100
1/2	105
1/4	110

WAC 246-370-110 Lighting

A school official shall:

(1) Provide light intensities that meet or exceed those specified in Table 2.

(a) Natural lighting, energy-efficient lighting systems, lighting fixtures, or bulbs may be used to maintain the minimum lighting intensities.

Table 2

Lighting intensities measured 30 inches above the floor or on working or teaching surfaces. Some lighting fixtures may require a start-up period before reaching maximum light output.

Task	Min. Foot Candle Intensity
Specialized rooms where safety is of prime consideration or fine detail work is done, for example, family and consumer science laboratories, science laboratories (including chemical storage areas), shops, drafting rooms, and art and craft rooms.	**50**
Kitchen areas including food storage and preparation areas.	**50**
General instructional areas, for example, study halls, lecture rooms, and libraries.	**30**
Gymnasiums: main and auxiliary spaces, shower rooms and locker rooms.	**20**
Noninstructional areas including auditoriums, lunchrooms, assembly rooms, corridors, stairs, storerooms, and restrooms.	**10**

(2) Control excessive brightness and glare in all instructional areas. Surface contrasts and direct or indirect glare must not cause excessive eye accommodation or eye strain problems.

(3) Provide sun control to exclude direct sunlight from window areas and skylights of instructional areas, assembly rooms, and meeting rooms during at least 80 percent of the normal school hours. Sun control is not required for sun angles less than 42 degrees up from the horizontal. Sun control is not required if air conditioning is provided, or special glass is installed having a total solar energy transmission factor less than 60 percent.

(4) Provide lighting in a manner that minimizes shadows and other lighting deficiencies on work and teaching surfaces.

(5) Provide windows in sufficient number, size, and location to enable students to see outside at least 50 percent of the school day. Windows are optional in specialized rooms.

WAC 246-370-120 Injury Prevention

A school official shall:

(1) Mitigate potential slip and fall hazards by, but not limited to:

(a) Providing stairwells and ramps with handrails and stairs with surfaces that reduce the risk of injury;

(b) Providing protection or barriers for areas that have fall risks such as balconies and orchestra pits;

(c) Storing unsecured equipment in a manner that prevents unauthorized use or injury;

(2) Ensure chemical and cleaning supply storage that includes:

(a) Manufacturer use instructions, warning labels, and Safety Data Sheets for proper storage of the supplies;

(b) Labels on supplies that are diluted from bulk chemical or cleaning agents with the accurate agent name and dilution rates;

(c) The original bulk or concentrated containers of cleaning and disinfectant agents for reference to labels and instructions until diluted contents are exhausted;

(d) Separation of incompatible substances; and

(e) Access that is limited to authorized users.

(3) Provide fragrance-free and low-hazard cleaning and sanitation supplies when available or ensure cleaning at a time and manner that would limit exposure to students; and

(4) Provide a written policy to mitigate injury and the spread of diseases if the school allows animals other than service animals in a school facility.

WAC 246-370-130 Imminent Health Hazard Procedure

(1) If a school official identifies a condition that could pose an imminent health hazard, a school official shall:

(a) Immediately consult with the local health officer to investigate the suspected hazard;

(b) Take immediate action to mitigate hazards and prevent exposure if an imminent health hazard is confirmed; and

(c) A school may consult with the local health officer in developing appropriate health and safety messages for school staff, students, and parents.

(2) If a local health officer identifies a condition that is an imminent health hazard at a school, the local health officer shall:

(a) Immediately inform school officials of the imminent health hazard;

(b) Consult with school officials to mitigate hazards and prevent exposure; and

(c) If requested, assist school officials in developing health and safety messages for school staff, students, and parents.

WAC 246-370-140 Playgrounds

(1) A school official shall:

(a) Consult with the local health officer regarding playground review and approval requirements prior to:

(i) Installing new playground equipment or fall protection surfaces;

(ii) Adding new playground features or equipment to an existing playground; or

(iii) Modifying existing playground equipment, features, or fall protection surfaces;

(b) Install, maintain, and operate playground equipment, including used equipment, and fall protection surfaces:

(i) In a manner consistent with the ASTM F 1487-21: Standard Consumer Safety Performance Specification for Playground Equipment for Public Use; and

(ii) In a manner consistent with the manufacturer's instructions and *Consumer Product Safety Commission Handbook for Public Playground Safety*, 2010;

(c) Provide playground plans and equipment specifications and any additional information the local health officer requests;

(d) Obtain plan review and written approval from the local health officer before installing, adding, or modifying playground equipment or fall protection surfaces; and

(2) The local health officer shall:

(a) Consult with a school official to determine requirements for playground plan review and approval consistent with the scope of the project;

(b) Review playground plans and equipment specifications to confirm that the requirements of these rules are addressed;

(c) Identify and request any additional documents required to complete the review;

(d) Provide written approval or denial of the playground plans and equipment specifications within 30 days of receiving all documents needed to complete the review unless the school officials and the local health officer agree to a different timeline;

(e) Verify that playground installation complies with the requirements of this section; and

(f) Coordinate all playground-related inspections with the school official.

(3) The use of chromated copper arsenate or creosote-treated wood to construct or install playground equipment, landscape structures, or other structures on which students may play is prohibited.

WAC 246-370-150 Specialized Rooms

A school official shall ensure specialized rooms that are part of a school facility include, if applicable:

(1) Single-use soap and single-use towels at handwashing sinks.

(2) Emergency washing facilities:

(a) An emergency shower must be provided:

(i) When there is potential for major portions of a person's body to contact corrosives, strong irritants, or toxic chemicals; and

(ii) That delivers water to cascade over the user's entire body at a minimum rate of 20 gallons (75 liters) per minute for fifteen minutes or more.

(b) An emergency eyewash fountain must be provided:

(i) When there is potential for a person's eyes to be exposed to corrosives, strong irritants, or toxic chemicals;

(ii) That irrigates and flushes both eyes simultaneously while the user holds their eyes open;

(iii) With an on-off valve that activates in one second or less and remains on without user assistance until intentionally turned off; and

(iv) That delivers at least 0.4 gallons (1.5 liters) of water per minute for fifteen minutes or more.

(c) Emergency washing facilities must:

(i) Be located so that it takes no more than 10 seconds to reach and no more than 50 feet;

(ii) Be kept free of obstacles blocking their use;

(iii) Function correctly; and

(iv) Provide the quality and quantity of water that is satisfactory for the emergency washing purposes.

(d) The design, installation, and maintenance of emergency washing facilities must meet the American National Standards Institute (ANSI) publication Z358.1 - 2014, American National Standard for *Emergency Eyewash and Shower Equipment.*

(3) A prohibition of use and storage of compounds that are:

(a) Considered shock-sensitive explosives, for example, picric acid, dinitro-organics, isopropyl ether, ethyl ether, tetrahydrofuran, dioxane; or

(b) Lethal at low concentrations when inhaled or in contact with skin, for example, pure cyanides, hydrofluoric acid, toxic compressed gases, mercury liquid and mercury compounds, and chemicals identified as the P-list under WAC 173-303-9903.

(4) Safety procedures and process for instructing students regarding the proper use of hazardous materials or equipment.

(5) Appropriate personal protective equipment when exposure to potential hazards might occur.

(6) Appropriate situation-specific emergency equipment is available when exposure to potential hazards might occur.

(7) Appropriate ventilation, source capture system, or other equipment approved by the local health officer to prevent the recirculation of air into the room or transfer of airflow into other parts of the school facility and to prevent contaminant from entering the students breathing zone.

(8) If a school facility includes a designated health room, a school official shall ensure that the health room includes:

(a) The means to visually supervise and provide privacy for room occupants;

(b) Surfaces that staff can easily clean and sanitize;

(c) A handwashing sink in the room;

(d) An adjoining restroom; and

(e) Mechanical exhaust ventilation that ensures that air does not flow from the health room to other parts of the school facility.

(9) Emergency shut-off valves or switches for gas and electricity connected to stationary machinery are installed during **new construction**. Valves or switches must:

(a) Be located close to the room exit door;

(b) Have unobstructed access; and

(c) Have signage posted adjacent to the valve that room occupants can easily read and understand from the opposite side of the room during an emergency.

WAC 246-370-160 Variances and Emergency Waivers

(1) School officials may:

(a) Submit a written variance request to the local health officer if there is an alternative that meets the intent of chapter 246-370 WAC. The variance request must include:

(i) The specific rule section or sections that the variance would replace;

(ii) The alternative that is proposed to replace the required rule;

(iii) A description of how the variance will provide a comparable level of protection as the rule that it will replace;

(iv) Any clarifying documentation needed to support the request including but not limited to engineering reports, scientific data, or photos.

(b) Implement a variance only after obtaining approval from the local health officer.

(2) The local health officer shall:

(a) Provide written approval or denial of a request for a variance to the school applicant and the department within 60 days of receiving a complete written variance request, unless the school official and the local health officer agree to a different timeline.

(3) The local health officer may grant a school official an emergency waiver from some or all of the requirements in these rules:

(a) For the use of a temporary facility if the facility normally used by the school is not safe to be occupied; or

(b) If a school can safely remain in operation during an imminent health hazard.

WAC 246-370-170 Severability

If any provision of this chapter or its application to any person or circumstance is held invalid, the remainder of the chapter or the application of the provision to other persons or circumstances is not affected.

WAC 246-370-180 Appeals

(1) Environmental health and safety decisions or actions of the local health officer may be appealed to the local board of health.

(2) Environmental health and safety appeals will be conducted in a manner consistent with the written procedure within each office.

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370
School Environmental Health and Safety

Contents

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-001
Purpose

Summary of changes: 001 Purpose

- **Combined**: Introduction statement with Purpose statement

Language Comparison: 001 Purpose

246-370-001 Draft	246-366-001 & 005	246-366A-001
	These rules and regulations are established as minimum environmental standards for educational facilities and do not necessarily reflect optimum standards for facility planning and operation.	(2) Implementation of this chapter is subject to the state legislature providing funding to public schools in accordance with section 222 of the 2009-11 biennial operating budget, chapter 564, laws of 2009, and may be subject to future legislative requirements. Unless and until legislative action allows for full or partial implementation of this chapter, chapter 246-366 WAC shall take precedent and this chapter shall not be implemented or enforced in any manner. (3) It is the intent of the Washington state board of health to work with the legislature to develop a strategy and timeline for funding and implementation of this chapter.
The purpose of this chapter is to set minimum environmental health and safety standards for school facilities operated for the primary purpose of providing education.	The purpose of this chapter is to maintain minimum environmental health and safety standards for school facilities until legislative action allows for full or partial implementation of chapter 246-366A WAC. To the extent the legislature funds or otherwise allows for its implementation, chapter 246-366A WAC is intended to replace or supersede this chapter.	(1) The purpose of this chapter is to replace chapter 246-366 WAC with a more modern set of minimum environmental health and safety standards for school facilities to promote healthy and safe school environments.

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-005 Definitions

Summary of changes: 005 Definitions

- **Added**: 22 New definitions
- **Removed**: 5 Obsolete definitions
- **Modernized**: 4 Existing definitions
- **No Change**: 2 Existing definitions

Language Comparison: 005 Definitions

246-370-005 Draft	246-366-010	246-366A-010
		(1) "Addition" means an extension or increase in floor area or height of a building or structure.
(1) “Air cleaning technologies” means technologies used to reduce the levels of air contaminants in indoor air.		
(2) “Air contaminant” means pollutants in the air that could, depending on dose and circumstances, cause adverse health impacts.		(2) "Air contaminants of public health importance" means pollutants in the indoor air that could, depending on dose and circumstances, have health impacts, including but not limited to: (a) Volatile organic compounds, for example, formaldehyde and benzene; (b) Combustion by-products, for example, carbon monoxide and nitrogen oxides; (c) Vapors and gases, for example, chlorine, mercury, and ozone; (d) Heavy metal dusts and fumes, for example, chromium and lead; and (e) Particulates, for example, wood and ceramic dust.
		(3) "Alteration" means any construction or renovation to an existing structure other than repair or addition.
(3) “Carbon Filter” means a type of filter that uses activated carbon or charcoal to absorb air contaminants.		

		(5) "Construction documents" means written, graphic, and pictorial documents prepared or assembled for describing the design, location, and physical characteristics of the elements of a project necessary for obtaining a building permit.
		(6) "Contaminant" means any hazardous material that occurs at greater than natural background levels.
(4) "Decibel (dB)" means a standard unit of measurement of sound pressure.		(7) "Decibel (dB)" means a standard unit of measurement of sound pressure.
(5) “Decibel, A-weighted (dBA)” means a decibel measure that has been weighted in accordance with the A-weighting scale. The A-weighting adjusts sound level as a function of frequency to correspond approximately to the sensitivity of human hearing.		(8) "Decibel, A-weighted (dBA)" means a decibel measure that has been weighted in accordance with the A-weighting scale. The A-weighting adjusts sound level as a function of frequency to correspond approximately to the sensitivity of human hearing.
(6) "Department" refers to the Washington State Department of Health.	(10) "Department" - Means Washington state department of health.	(9) "Department" means the Washington state department of health.
		(10) "Drinking fountain" means the type of plumbing fixture that delivers a stream of water for drinking without actively cooling the water.
(7) “Emergency washing facilities” means emergency washing facilities such as emergency showers, eyewashes, eye/face washes, hand-held drench hoses, or other similar units.		(11) "Emergency eye wash" means a hands-free device that: (a) Irrigates and flushes both eyes simultaneously with tepid potable water; (b) Activates an on-off valve in one second or less and remains on without user assistance until intentionally turned off; and (c) Delivers at least 0.4 gallons (1.5 liters) of water per minute for at least fifteen minutes
		(12) "Emergency shower" means a hand-activated shower that delivers tepid potable water to cascade over the user's entire body at a minimum rate of 20 gallons (75 liters) per minute for at least fifteen minutes.
(8) “Emissions” mean substances released into the air, including gases and particles, from various sources.		

(9) “Equivalent Continuous Sound Level” or “Leq” means the sound pressure level of a noise fluctuating over a period of time, expressed as the amount of average energy.		(13) "Equivalent sound level (Leq)" means the level of a constant sound that, over a given time period, contains the same amount of sound energy as the measured fluctuating sound.
		(14) "Faucet" means a type of plumbing fixture that is a valved outlet device attached to a pipe that normally serves a sink or tub and can discharge hot water, cold water, or both.
		(15) "First draw sample" means a water sample collected immediately upon opening a plumbing fixture that has not been used for at least eight hours prior to collection.
		(16) "Flush sample" means a water sample collected after allowing cold water to run for at least thirty seconds from a plumbing fixture that has not been used for at least eight hours prior to collection.
(10) Foot-candle means a unit of measure of the intensity of light falling on a surface, equal to one lumen per square foot.		(17) "Foot-candle" means a unit of measure of the intensity of light falling on a surface, equal to one lumen per square foot.
		(18) "Hazardous materials" means toxic, corrosive, flammable, explosive, persistent, or chemically reactive substances that, depending on dose and circumstances, pose a threat to human health.
(11) “HEPA filter” means a high-efficiency particulate air filter, a type of pleated mechanical air filter that can theoretically remove 99.97% of particles with a size of 0.3 microns.		
(12) “Imminent health hazard” means a significant threat or significant danger to health or safety that requires immediate action to prevent serious illness, injury, or death.		(19) "Imminent health hazard" means a significant threat or significant danger to health or safety that requires immediate action to prevent serious illness, injury, or death
		(20) "Implementation" or "implemented" means being given or having the force of law, requiring compliance, and being subject to enforcement.
	(3) "Instructional areas" - Space intended or used for instructional purposes	

(13) “Integrated pest management” means a program that reduces sources of food, water, and shelter for pests by using the least toxic pest controls when necessary.		
		(21) "Laboratory" means instructional areas of the school facility where students might be exposed to greater potential health and safety hazards than typically exist in general academic classrooms. Such laboratories may include, but are not limited to, chemistry, physics, material science, and biology laboratories or art studios (for example: Darkrooms, ceramic studios, and print making studios).
(14) "Local board of health" means the county or district board of health as defined in RCW 70.05.010(3).		(22) "Local board of health" means the county or district board of health as defined in RCW 70.05.010(3).
(15) "Local health officer" means legally qualified physician who has been appointed as the health officer for the city, town, county, or district public health department as defined in RCW 70.05.010(2) or their authorized representative.	(8) "Health officer" - Legally qualified physician who has been appointed as the health officer for the city, town, county or district public health department as defined in RCW 70.05.010(2), or his authorized representative.	(23) "Local health officer" means the legally qualified physician who has been appointed as the health officer for the county or district public health department as defined in RCW 70.05.010, or his or her authorized representative, including, but not limited to, the environmental health director.
		(24) "Mechanical exhaust ventilation" means the removal of indoor air to the outside of the building by mechanical means.
(16) “New construction” means new buildings or structures, including construction of additions to existing school facilities and reconstruction or retrofitting of an existing building not originally intended for use as a school facility. New construction does not include reconstruction of an existing school facility.[1]	(4) "New construction" - Shall include the following: (a) New school building. (b) Additions to existing schools. (c) Renovation, other than minor repair, of existing schools. (d) Schools established in all or part of any existing structures, previously designed or utilized for other purposes. (e) Installation or alteration of any equipment or systems, subject to these regulations, in schools. (f) Portables constructed after the effective date of these regulations.	(4) "Construction" or "construction project" means any activity subject to state or local building codes.
(17) “Noise abatement” means measures taken to reduce unacceptable sounds or vibrations.		

(18) “Noise criterion” means a single number for rating the sound quality of a room by comparing actual or calculated sound level spectra with a series of established octave band spectra.		(25) "Noise criterion (NC)" means a system for rating the noise level in an occupied area by comparing actual or calculated sound level spectra with a series of established octave band spectra.
(19) "Noise criterion 35 (NC35)” means the curve for specifying the maximum permissible sound pressure level for each frequency band.		(26) "Noise criterion 35 (NC35)" means the curve for specifying the maximum permissible sound pressure level for each frequency band.
	(5) "Occupied zone" - Is that volume of space from the floor to 6 feet above the floor when determining temperature and air movement, exclusive of the 3 foot perimeter on the outside wall.	
(20) “Portable” means any school building with a prefabricated structure that can be transported and installed on-site to provide additional educational space.	(7) "Portables" - Any structure that is transported to a school site where it is placed or assembled for use as part of a school facility.	(28) "Portable" means any relocatable structure that is transported to a school site and is placed or assembled there for use by students as part of a school facility.
(21) “Preschool” means an educational establishment or learning space offering early childhood education to children not old enough to attend kindergarten.		(27) "Preschool" means an instructional curriculum and portion of a school facility designed to instruct children not old enough to attend kindergarten.
(22) “Readiness Plan” means a written guide to ensure the health and safety of the occupants of a school facility in the event of a particular hazard, such as extreme heat or wildfire smoke.		
		(29) "Repair" means the reconstruction or renewal of any part of an existing school facility for the purpose of its maintenance
(23) “School” means any public institution of learning where the primary purpose is educational instruction for children in any grade from kindergarten through grade twelve and related activities by the public school as defined in RCW 28A.150.010 and any private school or private institution regulated by chapter 28A.195 RCW.	(1) "School" - Shall mean any publicly financed or private or parochial school or facility used for the purpose of school instruction, from the kindergarten through twelfth grade. This definition does not include a private residence in which parents teach their own natural or legally adopted children.	(30) "School" means any public, religious-affiliated, or private institution for instructing students in any grade from kindergarten through twelfth grade
(24) “School facility” means all buildings and land intended primarily for student use including, but not limited to portables, sports fields, playgrounds, classrooms, and common areas.		(32) "School facility" means buildings or grounds owned or leased by the school or donated to the school for the primary purpose of student use including, but not limited to, portables, playgrounds and sports fields.

(25) “School official” means a member of the district or school staff who has the authority to make decisions on behalf of the district or school to maintain and improve environmental health and safety within the limitations of this rule.		(33) "School officials" means those persons designated by the school board as responsible for planning, policy development, budgeting, management, or other administrative functions.
	(2) "Board of education" - An appointive or elective board whose primary responsibility is to operate public or private or parochial schools or to contract for school services	(31) "School board" means an appointed or elected board whose primary responsibility is to operate schools or to contract for school services and includes the governing body or owner of a private school.
	(9) "Secretary" - Means secretary of the Washington state department of health or the secretary's designee.	
		(34) "Shop" means instructional areas of the school facility where students are exposed to greater health and safety hazards than typically exist in general academic classrooms. Shops include, but are not limited to, industrial and agricultural shops, including career and technical education (for example: Metal-working, wood-working, construction, automotive, and horticulture).
	(6) "Site" - Shall include the areas used for buildings, playgrounds and other school functions.	(35) "Site" means any real property used or proposed to be used as a location for a school facility
(26) “Source capture system” means a mechanical exhaust system designed and constructed to capture air contaminants at their source and release air contaminants to the outdoor atmosphere.		(36) "Source capture system" means a mechanical exhaust system designed and constructed to capture air contaminants at their source and release air contaminants to the outdoor atmosphere.
(27) “Specialized room” means a space or room that has a specific function that utilizes equipment, furniture, or supplies not found in a standard room. This may include but is not limited to, a career and technical education room, laboratory, art room, or health room.		
(28) “Stationary machinery” means equipment that is designed to be installed in a fixed location and does not require intermittent movement to service different needs.		

		(37) "Tempered water" means water having a temperature range between eighty-five degrees Fahrenheit and one hundred ten degrees Fahrenheit.
		(38) "Tepid water" means water having a temperature range between sixty degrees Fahrenheit and ninety-five degrees Fahrenheit.
(29) “Total ventilation” means the portion of air that is supplied to a designated zone from the outdoors, plus any filtered and recirculated air.		
		(39) "Toxic" means having the properties to cause or significantly contribute to death, injury, or illness.
		(40) "Variance" means an alternative to a specific requirement in these rules, approved by the local health officer, that provides a comparable level of protection.
		(41) "Very low lead plumbing fixture" means plumbing fittings or fixtures used in the installation or repair of any plumbing providing water for human consumption that contain less than 0.3% lead by weight.
		(42) "Water cooler" means a type of mechanical plumbing fixture that actively cools the water.

WASHINGTON STATE BOARD OF HEALTH

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WAC 246-370-010 Applicability

Summary of changes: 010 Applicability

- **Referenced**: Exceptions to chapter 246-370 WAC including:
  - Facilities licensed under Title 110 WAC – Department of Children, Youth, and Families
  - Home-based instruction
  - Locations that provide education services, but education is not the primary function of the facility
  - Private tutoring
  - Post secondary schools
  - State-tribal education compact schools
- **Referenced**: Existing regulations that contain legal requirements for schools to follow for environmental health and safety on:
  - Food handling and preparation
  - Water recreation
  - Sewer and liquid waste disposal
  - Carbon monoxide detection
  - Drinking water

Language Comparison: 010 Applicability

246-370-010 Draft	246-366-060, -065, -070, & -130	246-366A
(1) Chapter 246-370 WAC applies to all facilities operated for the primary purpose of providing education, including those primary and secondary school facilities that offer preschool education or transition services except: (a) Any facility or part of a facility that is licensed by the department of children, youth and families under Title 110 WAC;		
(b) Private residences used for home-based instruction as defined by RCW 28A.225.010(4);		
(c) Facilities hosting educational programs where educational instruction is not a primary purpose, including, but not limited to, detention centers, jails, hospitals, mental health units, or long-term care facilities;		
(d) Private facilities where tutoring is the primary purpose;		

246-370-010 Draft	246-366-060, -065, -070, & -130	246-366A
(e) Public or private postsecondary education facilities providing instruction to students enrolled in secondary school; and		
(f) State-tribal education compact schools established under RCW 28A.715, State-Tribal Education Compacts Authority.		
(2) Additional environmental health and safety rules that apply to school facilities include, but are not limited to: (a) Facility and equipment sanitation, food preparation, food storage, and food temperature control must follow the requirements of chapter 246-215 WAC, Food Service. (b) Food service workers, including contracted staff and volunteers, must maintain a current food worker card per chapter 246-217 WAC, Food Worker Cards.	-130(1) Food storage, preparation, and service facilities shall be constructed and maintained and operated in accordance with chapters 246-215 and 246-217 WAC.	
(c) Water Recreation Facilities or aquatic venues must follow the requirements of chapters 246-260 WAC, Water Recreational Facilities, and 246-262 WAC, Recreational Water Contact Facilities, as applicable		
	-130(2) When central kitchens are used, food shall be transported in tightly covered containers. Only closed vehicles shall be used in transporting foods from central kitchens to other schools.	
(d) Supply sewer and liquid waste disposal supplied to the school facility that: (i) Is connected to a municipal sewage disposal system according to chapter 173-240 WAC, if available; or (ii) Is connected to an on-site sewage disposal system designed, constructed, and maintained as required by chapters 246-272A or 246-272B, and local ordinances.	-070 All sewage and wastewater from a school shall be drained to a sewerage disposal system which is approved by the jurisdictional agency. On-site sewage disposal systems shall be designed, constructed and maintained in accordance with chapters 246-272 and 173-240 WAC.	

246-370-010 Draft	246-366-060, -065, -070, & -130	246-366A
	-060(1) Plumbing: Plumbing shall be sized, installed, and maintained in accordance with the state building code. However, local code requirements shall prevail, when these requirements are more stringent or in excess of the state building code.	
(f) Potable water supplied to the school facility that: (i) Meets the provisions of chapter 246-290 WAC, Group A public water supplies, or chapter 246-291 WAC, Group B public water systems; (ii) Meets the requirements of the uniform plumbing code set forth in chapter 51-56 WAC; and (iii) Follow the requirements for lead in drinking water set forth in RCW 43.70.830 through 43.70.845 if the facility was built or the plumbing was replaced before 2016.	-060(2) Water supply: The water supply system for a school shall be designed, constructed, maintained and operated in accordance with chapter 246-290 WAC.	
	-065(8) Use products that comply with American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 (2007) to coat, line, seal, or patch drinking water contact surfaces, if the interior of water piping or plumbing fixtures is coated or lined.	
(e) The installation and maintenance of carbon monoxide detection and alarms in mechanical rooms and occupied zones as set forth in chapter 51-54A-0915 WAC;		

246-370-010 Draft	246-366-060, -065, -070, & -130	246-366A
(3) These rules are not intended to replace or supersede the department of labor and industries' authority and jurisdiction under Title 296 WAC over employee safety and health. (4) These rules are not intended to replace building code council requirements under Title 51 WAC. In the event this chapter is more stringent to protect health and safety it may supersede Title 51 WAC. (5) If the local permitting jurisdiction received a complete building permit application for school construction before the effective date of this chapter, the construction-related requirements of chapter 246-366 WAC apply. (6) If the local permitting jurisdiction receives a complete building permit application for school construction after this chapter is in effect, the construction-related requirements of this chapter in effect at the time of receipt apply unless otherwise specified in this chapter.		

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WAC 246-370-015 Guidance

Summary of changes: 015 Guidance

- **Updated**: Language without making substantive changes.

Language Comparison: 015 Guidance

246-370-015 Draft	246-366-140	246-366A-015
(1) The department, in cooperation with the state superintendent of public instruction, shall review potentially hazardous conditions in schools which are in violation of good safety practices and jointly prepare a guide for use during routine school inspections that: (a) Recommends corrective action to remediate violations of good safety practices; (b) Includes recommendations for safe facilities and safety practices; and (c) Is reviewed and updated every five years.	(1) The existence of unsafe conditions which present a potential hazard to occupants of the school are in violation of these regulations. The secretary in cooperation with the state superintendent of public instruction shall review potentially hazardous conditions in schools which are in violation of good safety practice, especially in laboratories, industrial arts and vocational instructional areas. They shall jointly prepare a guide for use by department personnel during routine school inspections in identifying violations of good safety practices. The guide should also include recommendations for safe facilities and safety practices.	(1) The department, in cooperation with the office of superintendent of public instruction, shall: (a) Update the Health and Safety Guide for K-12 Schools in Washington (the guide) at least every four years; and (b) Make the guide available on the department's website. (2) The guide is the primary source of guidance for local health officers and school officials implementing these rules.

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WAC 246-370-020
Site Assessment

Summary of changes: 020 Site Assessment

- **Added**: Local Health Officer (LHO) may require a site assessment for construction projects on existing school facilities.
- **Added**: School officials must:
  - Have a Phase 1 Site Assessment
  - Notify LHO at least 90 days prior to planning new construction
  - Submit site assessments to LHOs
- **Added**: LHOs must:
  - Review site assessments
  - Provide written approval to a school official within 60 days of receiving a completed site assessment

Language Comparison: 020 Site Assessment

246-370-020 Draft	246-366-030	246-366A-030
(1) A local health officer shall conduct or require a site assessment when a school district is planning: (a) To construct a new school facility on a site that was previously undeveloped or developed for other purposes; or (b) To convert an existing structure for primary use as a school facility.	(1) Before a new school facility is constructed, an addition is made to an existing school facility, or an existing school facility is remodeled, the board of education shall obtain written approval from the health officer that the proposed development site presents no health problems. The board of education may request the health officer make a survey and submit a written health appraisal of any proposed school site.	(1) A full site assessment and local health officer review and approval to determine environmental health and safety risk, is required for: (a) Constructing a new school facility on a site that was previously undeveloped or developed for other purposes; or (b) Converting an existing structure for primary use as a school facility.
	(2) School sites shall be of a size sufficient to provide for the health and safety of the school enrollment.	
(2) A local health officer may conduct or require a site assessment when a school district is planning to construct: (a) A new school facility on an existing school site; or (b) An addition to an existing school facility.		(2) The local health officer shall determine, in consultation with school officials, the need for and scope of the site assessment, review, and approval process for: (a) Constructing a new school facility on an existing school site; (b) Constructing an addition to an existing school facility; or (c) Converting part of an existing structure primarily used for other purposes into a school facility.

(3) A site assessment must include: (a) A Phase 1 Environmental Site Assessment (ESA) that meets the requirements of the American Society for Testing and Materials (ASTM) Standard #1527-21 (published December 2021);		(3) A full site assessment must include: (a) A Phase 1 Environmental Site Assessment (ESA) that meets the requirements of the American Society for Testing and Materials (ASTM) Standard #1527-05 (published November 2005);
(b) Sampling and analysis of potential contaminants if the Phase 1 ESA indicates that hazardous materials may be present. Sampling and analysis must comply with the applicable rules of the Washington state department of ecology, chapter 173-303-110 WAC; and		(b) Sampling and analysis of potential contaminants if the Phase 1 ESA indicates that hazardous materials may be present. Sampling and analysis must comply with applicable rules of the Washington state department of ecology;
(c) A noise assessment that measures noise from all sources during the hours that school is normally in session. (i) The noise must not exceed: (A) An hourly average of 55 dBA or the mean sound energy level for a specified time in Leq 60 minutes; and (B) A maximum sound level, recorded during a specified time measured as Lmax, of 75 dBA during the time of day the school is in session.	(3) Noise from any source at a proposed site for a new school, an addition to an existing school, or a portable classroom shall not exceed an hourly average of 55 dBA (Leq 60 minutes) and shall not exceed an hourly maximum (Lmax) of 75 dBA during the time of day the school is in session; except sites exceeding these sound levels are acceptable if a plan for sound reduction is included in the new construction proposal and the plan for sound reduction is approved by the health office.	(c) A noise assessment. Noise from any source must not exceed an hourly average of 55 dBA (the mean sound energy level for a specified time (Leq60 minutes)) and must not exceed an hourly maximum (the maximum sound level recorded during a specified time period (Lmax)) of 75 dBA during the time of day the school is in session. Sites exceeding these sound levels are acceptable if a plan for noise reduction is included in the new construction proposal and the plan for noise reduction is approved by the local health officer.
(4) A school official shall: (a) Notify the local health officer within 90 days of starting: (i) The preliminary planning for school construction that requires a review and approval of a site assessment by a local health officer under subsection (1) of this section, or (ii) The preliminary planning for school construction under subsection (2) of this section to determine if a site assessment is required.		(4) School officials shall: (a) Notify the local health officer within ninety days of starting preliminary planning for school construction that may require a site assessment with local health officer review and approval.
(b) Consult with the local health officer throughout the plan development phase regarding the scope of the site assessment and the timeline for completion of the site assessment.		(b) Consult with the local health officer throughout the plan development phase regarding the scope of the site assessment and the timeline for completion of the site assessment.
		(c) Have a site assessment completed when required under this section.

(c) Submit the written report to the local health officer assessing the potential impact of health and safety risks presented by the proposed site, including, but not limited to the following:		(d) Submit a written report to the local health officer assessing the potential impact of health and safety risks presented by the proposed site, including, but not limited to the following: (i) The findings and results obtained under subsection (3) of this section;
(i) The findings and results obtained under subsection (3) of this section; (ii) An analysis of the findings;		(ii) Analysis of the findings;
(iii) If a site exceeds sound levels under subsection (3)(c)(i), the school official must include a plan for noise reduction in the new construction proposal; (iv) A description of any mitigation proposed to address identified health and safety risks present at the site; and		(iii) Description of any mitigation proposed to address identified health and safety risks present at the site; and
(v) Any site assessment-related information requested by the local health officer to complete the site assessment review and approval process.		(iv) Any site assessment-related information requested by the local health officer to complete the site assessment review and approval process.
(d) Obtain the site review and written site approval from the local health officer when required under subsection (1) or (2) of this section.		(e) Obtain site review and written site approval from the local health officer when required under subsection (1) or (2) of this section.
		-020(1)(d) Retain for at least six years, unless otherwise required by other state or federal laws, records pertaining to: (iii) Site assessment, review, and approval as required under WAC 246-366A-030;
(5) The local health officer shall: (a) When notified by a school official, conduct an inspection of the proposed site;		(5) The local health officer shall: (a) Conduct an inspection of the proposed site;
(b) Review the site assessment for environmental health and safety risk;		(b) Review the site assessment for environmental health and safety risk;
(c) For site assessments according to subsection (1) of this section, provide written approval, describe site deficiencies needing mitigation to obtain approval, or deny use of the proposed school facility site within 60 days of receiving a complete request unless a school official and the local health officer agree to a different timeline; and		(c) For site assessments according to subsection (1) of this section, provide written approval, describe site deficiencies needing mitigation to obtain approval, or deny use of the proposed school facility site within sixty days of receiving a complete request unless the school officials and the local health officer agree to a different timeline; and

(d) For site assessments according to subsection (2) of this section, provide written approval or describe site deficiencies needing mitigation to obtain approval of the proposed school facility site within 60 days of receiving a complete request unless the school officials and the local health officer agree to a different timeline.		(d) For site assessments according to subsection (2) of this section, provide written approval or describe site deficiencies needing mitigation to obtain approval of the proposed school facility site within sixty days of receiving a complete request unless the school officials and the local health officer agree to a different timeline.
(6) If a written site assessment request from a school official is received by the local health officer before the effective date of this section, the site assessment requirements of chapter 246-366 WAC apply unless otherwise specified in this chapter.		(6) If school officials notified the local health officer in writing prior to the effective date of this section that construction is planned for a particular site, the site review requirements in effect at the time of notification apply, provided that school officials comply with all agreed on timelines for completion.

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WAC 246-370-030
Construction Plan Review

Summary of changes: 030 Construction Plan Review New, Alterations, and Portable

- **Added**: Specifications for types of construction that might require plan review
- **Added**: Set timelines for school officials and LHOs to review construction plans

Language Comparison: 030 Construction Plan Review New, Alterations, and Portables

246-370-030 Draft	246-366-040	246-366A-020, -040, & -050
(1) The following school construction projects must be reviewed and approved by the local health officer: (a) Construction of a new school facility, playground, or specialized room; (b) Establishment of a school in all or part of any existing structure previously used for another purpose; (c) Additions or alterations consisting of more than 5,000 square feet of floor area or more than 20 percent of the total square feet of an existing school facility, whichever is less; (d) Alteration of a playground or specialized room; and (e) Installation or construction of a portable classroom.	(1) Any board of education, before constructing a new facility, or making any addition to or major alteration of an existing facility or any of the utilities connected with the facility, shall: (a) First submit final plans and specifications of such buildings or changes to the jurisdictional health officer;	-040(1) The following school facility construction projects must be reviewed by the local health officer: (a) Construction of a new school facility; (b) Schools established in all or part of any existing structures previously used for other purposes; (c) Additions or alterations consisting of more than five thousand square feet of floor area or having a value of more than ten percent of the total replacement value of an existing school facility; (d) Any construction of a shop or laboratory for use by students; and (e) Installation of a portable. (2) Review and approval requirements for installation of a playground are established in WAC 246-366A-150.
(2) A school official shall: (a) Consult with the local health officer at the 50 percent design development stage for school construction projects plans to determine if the project requires construction review.	(b)Shall obtain the health officer's recommendations and any required changes, in writing;	-040(3) School officials shall: (a) Consult with the local health officer during preliminary planning for school construction projects that are subject to the requirements of this section; (b) Invite the local health officer to a predevelopment conference with school officials and project design professionals to participate in the discussion about the preliminary design to highlight health and safety matters and requirements of these rules;

246-370-030 Draft	246-366-040	246-366A-020, -040, & -050
(i) Provide additional documents requested by the local health officer, which may include, but are not limited to, written statements signed by the project's licensed professional engineer verifying that design elements comply with requirements specified by these rules; and (ii) Consult with the local health officer to determine whether additional construction project review is required to ensure that the project meets the requirements of these rules;		
(b) Obtain written approval from the local health officer for the construction project before starting construction. (i) If the school official meets the requirements of subsection (2)(a) but the local health officer does not meet the requirements of subsection (3), the school official may proceed with their scheduled construction timeline.	(c) Shall obtain written approval from the health officer, to the effect that such plans and specifications comply with these rules and regulations.	-040(c) Obtain construction project review and written approval from the local health officer regarding environmental health and safety requirements in these rules before starting construction; (d) Provide construction documents to the local health officer at the same time as the local building official to facilitate a concurrent and timely review; and (e) Provide additional documents requested by the local health officer, which may include, but are not limited to, written statements signed by the project's licensed professional engineer verifying that design elements comply with requirements specified by these rules.
(c) Request a preoccupancy inspection by the local health officer to ensure the correction of any imminent health hazards before allowing occupancy at the school facilities; and (d) Notify the local health officer at least five business days before a desired preoccupancy inspection.		-050(1) School officials shall: (a) Obtain a preoccupancy inspection by the local health officer of construction projects subject to WAC 246-366A-040(1), conducted in coordination with a final inspection by the local building official, in order to ensure imminent health hazards are corrected before allowing school facilities to be occupied; and (b) Notify the local health officer at least five business days before a desired preoccupancy inspection.

246-370-030 Draft	246-366-040	246-366A-020, -040, & -050
		-020(1)(d) Retain for at least six years, unless otherwise required by other state or federal laws, records pertaining to:(iv) Construction project plan review and approval as required under WAC 246-366A-040;
(3) The local health officer shall: (a) Respond to a request to consult with a school official within 15 business days of receipt; (b) Consult with a school official to determine what is required for plan review and approval; (c) Review construction project plans at the 50 percent design development stage to confirm if a construction review and approval is needed to meet the health and safety requirements of this chapter; (d) Consult with a school official when additional reviews are required; (e) Identify and request any additional documents required to determine compliance with requirements outlined in this chapter, if construction review is necessary; (f) Provide written approval within 60 days of receiving the 100 percent design development for the construction design plans or provide a written statement describing construction project plan deficiencies that need to change to obtain approval. This timeline may be altered if mutually agreed upon by the school official and the local health officer; and	(2) The health officer shall: (a) Conduct a preoccupancy inspection of new construction to determine its conformity with the approved plans and specifications.	-040(4) The local health officer shall: (a) Consult with school officials and determine what is required for plan review and approval; (b) Review construction documents to confirm that the health and safety requirements of these rules are met; (c) Identify and request any additional documents required to determine compliance with requirements specified by these rules; and (d) Provide written approval, or describe plan deficiencies needing change to obtain approval, of the construction project within sixty days of receiving all documents needed to complete the review, unless the school officials and the local health officer agree to a different timeline.

246-370-030 Draft	246-366-040	246-366A-020, -040, & -050
(g) Conduct inspections: (i) In a coordinated effort with the on-site project manager or other appropriate person identified by a school official; (ii) At any point during the construction period to verify compliance with the requirements of this chapter; (iii) Before the completed construction project is occupied and not more than five business days after the date requested by a school official or as otherwise agreed to by the school official and the local health officer; (A) If an imminent health hazard is identified, a solution must be identified and agreed to by the school official, the local health officer, and the local building official and implemented by school officials before the affected portion of the building is occupied. (B) If other conditions of noncompliance with this chapter are identified, provide the school official with a written list of items and consult in developing a correction schedule based on the level of risk to health and safety. (iv) To confirm satisfactory correction of the items identified under (iii) of this subsection.	(b) Make periodic inspections of each existing school within his jurisdiction, and forward to the board of education and the administrator of the inspected school a copy of his findings together with any required changes and recommendations.	-050(2) The local health officer: (a) Shall coordinate all construction-related inspections with the on-site project manager or other appropriate person identified by school officials. (b) May inspect for compliance with these rules during the construction phase. (c) Shall conduct a preoccupancy inspection for construction projects subject to WAC 246-366A-040(1) to verify compliance with these rules before the building is occupied and not more than five business days after the date requested by school officials or as otherwise agreed to by the school officials and the local health officer. (i) If an imminent health hazard is identified, a solution must be identified and agreed to by school officials, the local health officer, and the local building official and implemented by school officials before the affected portion of the building is occupied. (ii) If other conditions of noncompliance with these rules are identified, school officials shall be provided with a written list of items and consulted in developing a correction schedule, based on the level of risk to health and safety. (d) May reinspect to confirm satisfactory correction of the items identified under (c) of this subsection.

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WAC 246-370-040
Routine Inspection

Summary of changes: 040 Routine Inspection

- **Added**: Routine inspection frequency
- **Added**: Allow a trained LHO designee to perform additional inspections

Language Comparison: 040 Routine Inspection

246-370-040 Draft	246-366-040	246-366A-120
(1) The local health officer shall: (a) Conduct an environmental health and safety inspection of each school facility within their jurisdiction every three years, prioritizing areas for emphasis based on risk.	b) Make periodic inspections of each existing school within his jurisdiction, and forward to the board of education and the administrator of the inspected school a copy of his findings together with any required changes and recommendations.	(2) Responsibilities of the local health officer. (a) Except as provided in (b) of this subsection, the local health officer shall: (i) Periodically conduct an environmental health and safety inspection of each school facility within his or her jurisdiction. Beginning one year after the effective date of this section, those inspections must be conducted at least once each year.
(b) Notify school officials at the time of discovery, or immediately following the inspection, if conditions that pose an imminent health hazard are identified and follow the imminent health hazard requirements set forth in WAC 246-370-130.		(ii) Notify school officials at the time of discovery or immediately following the inspection if conditions that pose an imminent health hazard are identified and recommend actions to mitigate the hazards and prevent exposure.
(c) Consult with school officials upon completion of the inspection about findings and recommended follow-up actions and, if necessary, collaborate with school officials to develop a remediation schedule.		(iii) Consult with school officials upon completion of the inspection about findings and recommended follow-up actions and, if necessary, develop a correction schedule. Approaches and timelines used to address noncompliant conditions will depend on the level of risk to health and safety presented by the condition, and may include consideration of low-cost alternatives.
(d) Issue a final inspection report, within 60 days following an inspection. The local health officer may establish an alternate timeline for issuing the final inspection report when agreed upon in consultation with school officials. The report must include inspection findings related to this chapter and any required remediation.		(iv) Develop draft and final inspection reports, in consultation with school officials, within sixty days after conducting an inspection. The report must include inspection findings related to this rule and any required correction schedule.
(e) Confirm, as needed, that corrections are accomplished.		(v) Confirm, as needed, that corrections are accomplished.

246-370-040 Draft	246-366-040	246-366A-120
		(vi) Retain for at least six years, unless otherwise required by other state or federal laws, records pertaining to: (A) Health and safety inspections of the school facilities performed by the local health officer, including, but not limited to, the final inspection report and correction schedules; and
		(B) Imminent health hazards identified under this section and WAC 246-366A-190, and local health officer actions taken in response.
		(vii) Have the records described in this subsection available to the public, except where otherwise provided by applicable public disclosure law.
(2) The local health officer may: (a) Adjust the inspection interval of the schools within their jurisdiction if: (i) The local health officer develops a written risk-based inspection schedule, that is uniformly applied throughout the jurisdiction based on credible data or local risk factors. (A) The time between routine inspections may not exceed five years. (B) The time between routine inspections may not be more frequent than one year.		
(b) A school official or qualified designee may conduct the required additional inspections under a program approved by the local health officer, if the program includes provisions for: (i) Assuring that the school official or designee conducting the inspection has attended training in the standards, techniques, and methods used to conduct an environmental health and safety inspection;		(b) The local health officer may allow a school official or qualified designee to conduct a required inspection under a program approved by the local health officer not more than two out of every three years. The program must include provisions for: (i) Assuring that the school official or designee conducting the inspection has attended training in the standards, techniques, and methods used to conduct an environmental health and safety inspection;
(ii) Completing a standardized checklist at each inspection; and		(ii) Completing a standardized checklist at each inspection;

246-370-040 Draft	246-366-040	246-366A-120
(iii) Providing a written report to the local health officer detailing the findings of the inspection, within 60 days of completing the inspection.		(iii) Providing a written report to the local health officer about the findings of the inspection;

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WAC 246-370-050
General Building Requirements

Summary of changes: 050 General Building Requirements

- **Added**: Backflow devices on housekeeping sinks
- **Added**: Bathrooms and handwashing facilities are available during school hours and scheduled events

Language Comparison: 050 General Building Requirements

246-370-050 Draft	246-366-050	246-366A-060
A school official shall ensure that school facilities: (1) Are clean and in good repair;	(1) Buildings shall be kept clean and in good repair.	(1) Keep school facilities clean and in good condition.
	(2) Instructional areas shall have a minimum average ceiling height of 8 feet. Ceiling height shall be the clear vertical distance from the finished floor to the finished ceiling. No projections from the finished ceiling shall be less than 7 feet vertical distance from the finished floor, e.g., beams, lighting fixtures, sprinklers, pipe work.	
(2) Do not attract, shelter, or promote the propagation of insects, rodents, bats, birds, and other pests of public health significance;	(5) The premises and all buildings shall be free of insects and rodents of public health significance and conditions which attract, provide harborage and promote propagation of vermin.	(1) Design school facilities to minimize conditions that attract, shelter, and promote the propagation of insects, rodents, bats, birds, and other pests of public health significance. This subsection does not mandate the installation of window screens nor does it prohibit the installation of retention ponds or rain gardens.
(3) Have floors that suit the intended use, allow easy cleaning, and dry easily to inhibit mold growth and mitigate fall risks;	(4) The floors shall have an easily cleanable surface.	(5) Provide floors throughout the school facility that are appropriate for the intended use, easily cleanable and can be dried effectively to inhibit mold growth. These floor materials include, but are not limited to, wood, vinyl, linoleum, and tightly woven carpets with water impervious backing.
(4) Has vacuum breakers or backflow prevention devices installed on hose bibs and supply nozzles used to connect hoses or tubing to housekeeping sinks;		
(5) Provide proper storage for student jackets or backpacks, play equipment, and instructional equipment to mitigate trip, pest, or other public health hazards; and	(7) There shall be sufficient space provided for the storage of outdoor clothing, play equipment and instructional equipment. The space shall be easily accessible, well lighted, heated and ventilated.	6) Provide reasonably sufficient space for the storage of play equipment, instructional equipment, and outdoor clothing. The space must be reasonably accessible, lighted, and ventilated.

246-370-050 Draft	246-366-050	246-366A-060
(6) Provide toilet and handwashing facilities accessible for use during school hours and scheduled events that: (a) Provide handwashing facilities with access to: (i) Soap; (ii) Fixtures that maintain water temperatures between 85- and 120-degrees Fahrenheit; (iii) With single-use or disposable towels or blower or equivalent hand-drying device; and (b) Provide toilet paper.	(3) Toilet and handwashing facilities. (a) Adequate, conveniently located toilet and handwashing facilities shall be provided for students and employees. At handwashing facilities soap and single-service towels shall be provided. Common use towels are prohibited. Warm air dryers may be used in place of single-service towels. Toilet paper shall be available, conveniently located adjacent to each toilet fixture. (c) Toilet and handwashing facilities must be accessible for use during school hours and scheduled events. (d) Handwashing facilities shall be provided with hot water at a maximum temperature of 120 degrees Fahrenheit. If hand operated self-closing faucets are used, they must be of a metering type capable of providing at least ten seconds of running water.	

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WAC 246-370-060
Showers and Restrooms

Summary of changes: 060 Showers and Restrooms

- **Added:** At new construction or renovation
  - Must have 1 shower per 15 individuals per each gender participating in physical education or sports teams.
  - Must have 1 toilet per 15 individuals with up to 10% of the fixtures being urinals.

Language Comparison: 060 Showers and Restrooms

246-370-060 Draft	246-366-050 & -060	246-366A-120 & -125
(1) When new installation or renovation of an existing shower or restroom facility is planned, school officials shall: (a) Consult with the local health officer to determine if a construction review and plan approval is required.		
(b) Shower facilities must: (i) Automatically maintain hot water between 100° F and 120° F; (ii) Meet the requirements of the uniform plumbing code set forth in chapter 51-56 WAC; (iii) Contain floor surfaces in shower areas that are water-impervious, slip-resistant, and sloped to floor drains. Walls must be water-impervious up to showerhead height. Upper walls and ceilings must have an easily cleanable surface; (c) Provide shower facilities for grades nine and above for classes in physical education and for team sports that:	-060(4) Showers: (a) Showers shall be provided for classes in physical education, at grades 9 and above. An automatically controlled hot water supply of 100 to 120 degrees Fahrenheit shall be provided. Showers with cold water only shall not be permitted.	-120 School officials shall: (1) Provide shower facilities for grades nine and above for classes in physical education and for team sports. Showers must supply hot water between one hundred and one hundred twenty degrees Fahrenheit.
(i) Meet a ratio of one shower per 15 individuals of each gender participating in physical education classes or team sports;		
(ii) If provided, have drying areas adjacent to showers and locker or dressing rooms. Walls and ceilings must have an easily cleanable surface and floor surfaces must be water impervious, slip-resistant, and sloped to floor drains;	-060(b) Drying areas, if provided, shall be adjacent to the showers and adjacent to locker rooms. Shower and drying areas shall have water impervious nonskid floors. Walls shall be water impervious up to showerhead heights. Upper walls and ceiling shall be of smooth, easily washable construction.	-120(3) Locate drying areas, if provided, adjacent to showers and locker or dressing rooms. Walls and ceilings must have an easily cleanable surface and floor surfaces must be water impervious, slip-resistant, and sloped to floor drains.

246-370-060 Draft	246-366-050 & -060	246-366A-120 & -125
(iii) When drying areas are not provided, locker or dressing room floor surfaces must be water-impervious, slip-resistant, and sloped to floor drains; and (iv) Provide locker or dressing rooms adjacent to showers or drying rooms. Walls and ceilings must have an easily cleanable surface. When drying areas are provided, floor surfaces in locker or dressing rooms must be appropriate for the intended use, easily cleanable and dryable to effectively inhibit mold growth.	-060(c) Locker and/or dressing room floors shall have a water impervious surface. Walls shall have a washable surface. In new construction, floor drains shall be provided in locker and dressing areas.	-120(2) Provide floor surfaces in shower areas that are water impervious, slip-resistant, and sloped to floor drains. Walls must be water impervious up to showerhead height. Upper walls and ceilings must have an easily cleanable surface. (4) Provide locker or dressing rooms adjacent to showers or drying rooms. Walls and ceilings must have an easily cleanable surface. When drying areas are provided, floor surfaces in locker or dressing rooms must be appropriate for the intended use, easily cleanable and dryable to effectively inhibit mold growth. When drying areas are not provided, locker or dressing room floor surfaces must be water impervious, slip-resistant, and sloped to floor drains.
	-060(d) If towels are supplied by the school, they shall be for individual use only and shall be laundered after each use.	-125(7) When cloth towels are supplied by the school, provide them for individual use and launder them after each use.
(d) Provide restrooms: (i) With handwashing fixtures that automatically maintain water between 85° F and 120° F;	-050(3) Toilet and handwashing facilities. (a) Adequate, conveniently located toilet and handwashing facilities shall be provided for students and employees. At handwashing facilities soap and single-service towels shall be provided. Common use towels are prohibited. Warm air dryers may be used in place of single-service towels. Toilet paper shall be available, conveniently located adjacent to each toilet fixture.	-125 School officials shall: (2) Provide hot water to all handwashing plumbing fixtures at a maximum temperature of one hundred twenty degrees Fahrenheit. (3) Provide tempered water for those handwashing plumbing fixtures that do not allow the user to select water temperature. (4) Provide any hand operated, self-closing handwashing plumbing fixtures with the capability of providing at least ten seconds of running water.
(ii) At a ratio of one toilet per 15 individuals with up to 10 percent of the toilet fixtures being substituted with urinals; (iii) Meet the requirements of the uniform plumbing code set forth in chapter 51-56 WAC	-050(b) The number of toilet and handwashing fixtures in schools established in existing structures, previously designed or utilized for other purposes shall be in accordance with the state building code. However, local code requirements shall prevail, when these requirements are more stringent or in excess of the state building code.	
(iv) That contain water-impervious floor surfaces that are slip-resistant and sloped to floor drains;		

246-370-060 Draft	246-366-050 & -060	246-366A-120 & -125
(v) With walls that are water-impervious up to water splash height. Upper walls and ceilings must have an easily cleanable surface; and		
(vi) With soap and single-use or disposable towels or blower or equivalent hand-drying device.		-125(1) Provide in each restroom: (a) Toilet paper in each toilet stall; (b) Single service handwashing soap near each handwashing sink; and (c) Single-service towels or an adequate number of warm-air dryers. Common use towels are not allowed.
(2) If a new installation or renovation of an existing shower or restroom facility requires local health officer review and approval, the local health officer shall follow the construction plan review requirements for new construction or alterations set forth in WAC 246-370-030.		

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WAC 246-370-070
Ventilation

Summary of changes: 070 Ventilation

- **New Section**: Sets prescribed ventilation requirements like outdoor air intake rates.

Language Comparison: 070 Ventilation

246-370-070 Draft	246-366-080	246-366A-090 & -095
	(1) All rooms used by students or staff shall be kept reasonably free of all objectionable odor, excessive heat or condensation.	
A school official shall ensure a school facility: (1) That is permitted as new construction after the effective date of this section, provides filtered outdoor and recirculated air supplies in schools when occupied at: (a) Outdoor ventilation rates as set forth in WAC 51-52-0403 and at least 21 cubic feet per minute per person; and	(2) All sources producing air contaminants of public health importance shall be controlled by the provision and maintenance of local mechanical exhaust ventilation systems as approved by the health officer.	-090 School officials shall: (1) Provide mechanical exhaust ventilation that meets or exceeds the requirements in chapter 51-52 WAC at locations intended for equipment or activities that produce air contaminants of public health importance.
		-090(2) Situate fresh air intakes away from building exhaust vents and other sources of air contaminants of public health importance in a manner that meets or exceeds the requirements in chapter 51-52 WAC. Sources of air contaminants include bus and vehicle loading zones, and might include, but are not limited to, parking areas and areas where pesticides or herbicides are commonly applied.
		-090(3) Use materials that will not deteriorate and contribute particulates to the air stream if insulating the interior of air handling ducts. Insulation materials must be designed to accommodate duct cleaning and exposure to air flow without deteriorating. This subsection does not apply if the local permitting jurisdiction received a complete building permit application within three years after the effective date of this section.

246-370-070 Draft	246-366-080	246-366A-090 & -095
		-090(4) Use ducted air returns and not open plenum air returns consisting of the open space above suspended ceilings. This subsection does not apply to: (a) Alterations to school facilities;
		-090(b) Additions to school facilities that tie into existing ventilation systems that use open plenum air returns; or
		-090(c) Facilities for which the local permitting jurisdiction received a complete building permit application within three years after the effective date of this section.
		-095 School officials shall: (2) Ventilate occupied areas of school buildings during school hours and school-sponsored events. During periods of ventilation: (a) For school facilities constructed or sited under a building permit for which the local permitting jurisdiction received a completed building permit application on or after the effective date of this section, provide, as a minimum, outdoor air according to WAC 51-52-0403, Table 403.3, Required Outdoor Ventilation Air.
(b) Particulate filtration as set forth in WAC 51-52-0605 including a facility that has small, ducted air handlers and ventilation systems.		
(2) Permitted or constructed before the effective date of this section supplies filtered and recirculated air from the existing ventilation system, if feasible, that provides at least: (a) Outdoor ventilation rate as set forth in WAC 51-52-0403; and		-095(b) For school facilities constructed or sited under a building permit for which the local permitting jurisdiction received a completed building permit application before the effective date of this section, conduct standard operation and maintenance best practices including, but not limited to, making timely repairs, removing obstructions, and replacing filters and fan drive belts, and setting system controls so that, to the extent possible given the design of the ventilation system, outdoor air is provided consistent with WAC 51-52-0403, Table 403.3, Required Outdoor Ventilation Air.

246-370-070 Draft	246-366-080	246-366A-090 & -095
(b) Particulate filtration as set forth in WAC 51-52-0605 including a facility that has small, ducted air handlers and ventilation systems.		
(3) Operates and maintains the ventilation system by, at minimum, performing routine ventilation system inspections, and replacing filters as needed to achieve required ventilation flow rates;		-095(3) Use and maintain mechanical exhaust ventilation installed for equipment or activities that produce air contaminants of public health importance or moisture.
(4) Limits air cleaning technologies to mechanical air cleaners that only use physical filtration, such as HEPA and carbon filters, unless the local health officer approves an alternative air cleaning technology. (5) Provides adequate ventilation for specialized rooms as set forth in WAC 246-370-150.		

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WAC 246-370-080
Indoor Air Quality

Summary of changes: 080 Indoor Air Quality

- **New Section**: Sets prescribed indoor air quality requirements like radon testing and pest management planning

Language Comparison: 080 Indoor Air Quality

246-370-080 Draft	246-366-	246-366A-070 & -095
A school official shall: (1) Control sources of air contaminants by: (a) Excluding sources of potential air contaminants from a school facility; or		
(b) Providing a space with appropriately used and maintained ventilation to minimize student exposure to potential air contaminants;		-095(4) Limit student exposure to air contaminants of public health importance produced by heat laminators, laser printers, photocopiers, and other office equipment by placing such equipment in appropriately ventilated spaces and providing instruction to users on how to operate and maintain equipment as recommended by the manufacturer. (5) Take preventive or corrective action when pesticides, herbicides, or air contaminants of public health importance are likely to be drawn or are drawn into the building or ventilation system.
(2) Develop and implement a plan to test for radon every five years in regularly occupied areas on or below ground level;		
(3) Prohibit the use of air fresheners, candles, or other products that contain fragrances;		
(4) Physically contain construction activities that generate emissions or conduct construction at times that minimize student exposure;		

(5) Promptly control sources of moisture and remediate mold using measures to minimize occupant exposure to mold and chemicals used during the remediation process;		-070(1) Visually monitor the school facility for water intrusion and moisture accumulation that may lead to mold growth, especially after severe weather events. (2) Begin corrective action within twenty-four hours of discovering water intrusion or moisture accumulation to inhibit and limit mold growth by: (a) Identifying and eliminating the cause of the water intrusion or moisture accumulation; and (b) Drying the affected portions of the school facility. (3) When mold growth is observed or suspected, use recognized remediation procedures such as those provided by the Environmental Protection Agency (Mold Remediation in Schools and Commercial Buildings, EPA 402-K-01-001, March 2001). Begin recognized procedures within twenty-four hours to: (a) Identify and eliminate the cause of the moisture or water contributing to the mold growth; (b) Dry the affected portions of the school facility; (c) Investigate the extent of the mold growth, including evaluation of potentially affected materials and surfaces inside walls and under floor coverings, when moisture or water has entered those spaces; (d) Minimize exposure to indoor mold spores and fragments until mold remediation is complete using methods including, but not limited to, containment and negative air pressure; and (e) Remediate surfaces and materials contaminated with mold. (4) When remediation is required under subsection (3) of this section and there is significant risk of exposure, including when the total area affected is greater than ten square feet, promptly inform school facility staff, students, and parents of the conditions and the plans and time frame for the remediation. The extent of this communication will depend on the likelihood of individual exposure, the scope of the remediation project, and the time required to complete it.

246-370-080 Draft	246-366-	246-366A-070 & -095
(6) Ensure the implementation of a written indoor air quality plan within five years of the effective date of this section that includes: (a) Identified areas of indoor air quality concerns and develop preventative measures to address the concerns;		
(b) A schedule to perform routine inspections of heating, ventilation, and cooling systems to ensure systems are operating within intended parameters of this rule; and		
(c) An integrated pest management plan.		

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WAC 246-370-090
Temperature

Summary of changes: 090 Temperature

- **Added**: Maximum and minimum temperature requirements
- **Added**: Requirement for the preparation of an extreme temperature readiness plan.

Language Comparison: 090 Temperature

246-370-090 Draft	246-366-090 & -100	246-366A-095
	-100 Heating, ventilating and/or air conditioning systems shall be equipped with automatic room temperature controls.	
(1) A school official shall ensure the development and implementation of an extreme temperature readiness plan for non-specialized rooms when: (a) A school facility is occupied by students and:		
(i) Classroom temperatures are outside of the range of 65 degrees – 79 degrees Fahrenheit; or	-095 The entire facility inhabited by students and employees shall be heated during school hours to maintain a minimum temperature of 65 degrees Fahrenheit except for gymnasiums which shall be maintained at a minimum temperature of 60 degrees Fahrenheit.	School officials shall: (1) Heat occupied areas of school buildings during school hours and school-sponsored events to maintain a minimum temperature of sixty-five degrees Fahrenheit except for gymnasiums and hallways, which must be maintained at a minimum temperature of sixty degrees Fahrenheit.
(ii) Hallways and common area temperatures are outside of the range of 60 degrees – 79 degrees Fahrenheit.		
(2) A school official may consult with a local health officer to develop an extreme temperature readiness plan.		

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WAC 246-370-100
Noise

Summary of changes: 100 Noise

- **Updated**: Language—no substantive changes

Language Comparison: 100 Noise

246-370-100 Draft	246-366-110	246-366A-100 & -105
A school official shall ensure: (1) In new construction: (a) Construction plans that include designs for ventilation equipment or other equipment that will contribute to mechanical noise sources in a classroom must include designs that ensures that the background sounds conform to a noise criterion curve or equivalent not to exceed NC-35. The school official shall certify equipment and features are installed according to the approved plans.	(1) In new construction, plans submitted under WAC 246-366-040 shall specify ventilation equipment and other mechanical noise sources in classrooms are designed to provide background sound which conforms to a noise criterion curve or equivalent not to exceed NC-35. The owner shall certify equipment and features are installed according to the approved plans.	-100(1) School officials shall design ventilation equipment and other mechanical noise sources in classrooms to provide background sound which conforms to a noise criterion curve or equivalent not to exceed NC-35. School officials shall certify, or hire the appropriate person to certify, that ventilation equipment and other mechanical noise sources that have been installed meet the NC-35 noise criterion design standard.
(b) The actual background noise at any student location within a newly constructed classroom does not exceed 45 dBA (Leqx) and 70 dB(Leqx) (unweighted scale) where x is thirty seconds or more. The health officer shall determine compliance with this section when the ventilation system and the ventilation system's noise generating components, e.g., condenser, heat pump, etc., are in operation.	(2) In new construction, the actual background noise at any student location within the classroom shall not exceed 45 dBA (Legx) and 70 dB (Leqx) (unweighted scale) where x is thirty seconds or more. The health officer shall determine compliance with this section when the ventilation system and the ventilation system's noise generating components, e.g., condenser, heat pump, etc., are in operation.	-105 School officials shall: (1) Maintain the background noise at any student location within classrooms constructed after January 1, 1990, at or below 45 dBA (Leqx) where x is 30 seconds or more. Background noise levels must be determined when the ventilation system and the ventilation system's noise generating components, such as the condenser and heat pump, are operating and the room is unoccupied by students.
(c) The maximum ambient noise level in specialized rooms shall not exceed 65 dBA when all fume and dust exhaust systems are operating.	(4) In new construction, the maximum ambient noise level in industrial arts, vocational agriculture and trade, and industrial classrooms shall not exceed 65 dBA when all fume and dust exhaust systems are operating.	-105(2) Maintain the background noise level at any student location in laboratories and shops with local exhaust ventilation systems constructed after January 1, 1990, at or below 65 dBA (Leqx) where x is 30 seconds or more. Background noise levels must be determined when all ventilation equipment is operating and the room is unoccupied by students.

(2) Portable classrooms constructed before January 1, 1990, moved within the same school property or the same school district, are exempt from the requirements of this section if the portable classrooms: (a) Do not alter the noise abatement features; (b) Do not increase noise-generating features; (c) Were previously used for classroom instruction; (d) Do not change ownership; and (e) Are located on a site that meets the noise assessment requirements set forth in WAC 246-370-020(3)(c).	(3) Existing portable classrooms, constructed before January 1, 1990, moved from one site to another on the same school property or within the same school district are exempt from the requirements of this section if the portable classrooms meet the following: (a) Noise abating or noise generating features shall not be altered in a manner that may increase noise levels; (b) The portable classrooms were previously in use for general instruction; (c) Ownership of the portable classrooms will remain the same; and (d) The new site is in compliance with WAC 246-366-030(3).	-100(2) Portable classrooms constructed before January 1, 1990, moved within the same school property or within the same school district, are exempt from the requirements of this section if the portable classrooms meet all of the following criteria: (a) Noise abating or noise generating features are not altered in a manner that may increase noise levels; (b) The portable classrooms were previously in use for instruction; (c) Ownership of the portable classrooms remains the same; and (d) The new site meets the noise standard in WAC 246-366A-030 (3)(c).
(3) The maximum noise exposure for students in classrooms shall not exceed the levels specified in Table 1.	(5) The maximum noise exposure for students in vocational education and music areas shall not exceed the levels specified in Table 1.	-105(3) Maintain noise exposure for students below the maximum levels in Table 1
(4) That activities that expose students to sound levels equal to or greater than 115 dBA are prohibited.	Students shall not be exposed to sound levels equal to or greater than 115 dBA.	-105(4) Not allow student exposure to sound levels equal to or greater than 115 dBA.
(5) That students are provided and required to use personal protective equipment where noise levels exceed those specified in Table 1. Personal protective equipment must reduce student noise exposure to comply with the levels specified in Table 1.	(6) Should the total noise exposure in vocational education and music areas exceed the levels specified in Table 1 of subsection (5) of this section, hearing protectors, e.g., ear plugs, muffs, etc., shall be provided to and used by the exposed students. Hearing protectors shall reduce student noise exposure to comply with the levels specified in Table 1 of subsection (5) of this section.	-105(5) Provide and require students to use personal protective equipment, for example ear plugs or muffs, where noise levels exceed those specified in Table 1. Personal protective equipment must reduce student noise exposure to comply with the levels specified in Table 1

Table 1
Maximum noise exposures permissible
Duration per day (hours)
8
6
4
3
2
1-1/2
1
1/2
1/4

Table 1
Maximum noise exposures permissible
Duration per day (hours)
8
6
4
3
2
1-1/2
1
1/2
1/4

Table 1
Maximum noise exposures permissible
Duration per day (hours)
8
6
4
3
2
1-1/2
1
1/2
1/4

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-110
Lighting

Summary of changes: 110 Lighting

- **Updated**: Language—no substantive changes

Language Comparison: 110 Lighting

246-370-110 Draft	246-366-120 & -150	246-366A-060 & -120
General instructional areas, for example, study halls, lecture rooms, and libraries.	Gymnasiums: Main and auxiliary spaces, shower rooms and locker rooms.	General instructional areas, for example, study halls, lecture rooms, and libraries.
Gymnasiums: main and auxiliary spaces, shower rooms and locker rooms.		Gymnasiums: main and auxiliary spaces, shower rooms and locker rooms.
Noninstructional areas including auditoriums, lunchrooms, assembly rooms, corridors, stairs, storerooms, and restrooms.		Noninstructional areas including auditoriums, lunchrooms, assembly rooms, corridors, stairs, storerooms, and restrooms.
(2) Control excessive brightness and glare in all instructional areas. Surface contrasts and direct or indirect glare must not cause excessive eye accommodation or eye strain problems.	-120(2) Excessive brightness and glare shall be controlled in all instructional areas. Surface contrasts and direct or indirect glare shall not cause excessive eye accommodation or eye strain problems.	-120(2) Control excessive brightness and glare in all instructional areas. Surface contrasts and direct or indirect glare must not cause excessive eye accommodation or eye strain problems.
(3) Provide sun control to exclude direct sunlight from window areas and skylights of instructional areas, assembly rooms, and meeting rooms during at least 80 percent of the normal school hours. Sun control is not required for sun angles less than 42 degrees up from the horizontal. Sun control is not required if air conditioning is provided, or special glass is installed having a total solar energy transmission factor less than 60 percent.	-050(9) Exterior sun control shall be provided to exclude direct sunlight from window areas and skylights of instructional areas, assembly rooms and meeting rooms during at least 80 percent of the normal school hours. Each area shall be considered as an individual case. Sun control is not required for sun angles less than 42 degrees up from the horizontal. Exterior sun control is not required if air conditioning is provided, or special glass installed having a total solar energy transmission factor less than 60 percent.	-060(3) Provide sun control to exclude direct sunlight from window areas and skylights of instructional areas, assembly rooms and meeting rooms during at least eighty percent of the normal school hours. Each area must be considered as an individual case. Sun control is not required for sun angles less than forty-two degrees up from the horizontal. Sun control is not required if air conditioning is provided or special glass is installed having a total solar energy transmission factor less than sixty percent.
(4) Provide lighting in a manner that minimizes shadows and other lighting deficiencies on work and teaching surfaces.	-120(3) Lighting shall be provided in a manner which minimizes shadows and other lighting deficiencies on work and teaching surfaces.	-120(3) Provide lighting in a manner that minimizes shadows and other lighting deficiencies on work and teaching surfaces.
(5) Provide windows in sufficient number, size, and location to enable students to see outside at least 50 percent of the school day. Windows are optional in specialized rooms.	-050(8) Schools shall be provided with windows sufficient in number, size and location to permit students to see to the outside. Windows are optional in special purpose instructional areas including, but not limited to, little theaters, music	-060(2) Design school facilities with windows in sufficient number, size, and location to enable students to see outside at least fifty percent of the school day. Windows are optional in special purpose instructional areas including, but not

	areas, multipurpose areas, gymnasiums, auditoriums, shops, libraries and seminar areas. No student shall occupy an instructional area without windows more than 50 percent of the school day.	limited to, theaters, music areas, multipurpose areas, gymnasiums, auditoriums, shops, laboratories, libraries, and seminar areas.

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-120
Injury Prevention

Summary of changes: 120 Injury Prevention

- **Added**: Fall protection from balconies or orchestra pits and storage of unsecured equipment
- **Added**: Updated language for chemical storage
- **Added**: Fragrance-free and low-hazard cleaning requirements
- **Added**: Injury and communicable disease prevention planning when animals are allowed in school

Language Comparison: 120 Injury Prevention

246-370-120 Draft	246-366-050	246-366A-060, -065, & -080
A school official shall: (1) Mitigate potential slip and fall hazards by, but not limited to: (a) Providing stairwells and ramps with handrails and stairs with surfaces that reduce the risk of injury;	(3) All stairway[s] and steps shall have handrails and nonslip treads.	-060(4) Provide surfaces on steps that reduce the risk of injury caused by slipping.
(b) Providing protection or barriers for areas that have fall risks such as balconies and orchestra pits;		-060(7) Provide measures to reduce potential injury from fall hazards, including but not limited to, retaining walls; performance arts stages and orchestra pits; balconies; mezzanines; and other similar areas of drop-off to a lower floor.
(c) Storing unsecured equipment in a manner that prevents unauthorized use or injury;		-065(7) Safely store play equipment, instructional equipment, and outdoor clothing where reasonably accessible.
(2) Ensure chemical and cleaning supply storage that includes: (a) Manufacturer use instructions, warning labels, and Safety Data Sheets for proper storage of the supplies;		
(b) Labels on supplies that are diluted from bulk chemical or cleaning agents with the accurate agent name and dilution rates;	(6) All poisonous compounds shall be easily identified, used with extreme caution and stored in such a manner as to prevent unauthorized use or possible contamination of food and drink.	-065(4) Label, use, store and dispose of hazardous materials to: (a) Prevent health and safety hazards;
(c) The original bulk or concentrated containers of cleaning and disinfectant agents for reference to labels and instructions until diluted contents are exhausted;		

(d) Separation of incompatible substances; and		-065(b) Keep incompatible substances apart from each other;
(e) Access that is limited to authorized users.		-065(c) Prevent unauthorized access and use; and
(3) Provide fragrance-free and low-hazard cleaning and sanitation supplies when available or ensure cleaning at a time and manner that would limit exposure to students; and		-065(5) Select supplies and methods of use that reduce exposure to hazardous materials.
		-065(6) Allow only those hazardous materials in schools that they have approved for use. Types of commercial products that might contain hazardous materials include, but are not limited to, cleaners, sanitizers, maintenance supplies, pesticides, herbicides, and instruction-related supplies.
(4) Provide a written policy to mitigate injury and the spread of diseases if the school allows animals other than service animals in a school facility.		-080(1) School officials shall allow in school facilities only those animals, other than service animals, approved under written policies or procedures.
		-080(2) School officials shall develop written policies or procedures for any animals allowed in school facilities to prevent: (a) Injuries caused by wild, dangerous, or aggressive animals; (b) Spread of diseases from animals known to commonly carry diseases including, but not limited to, rabies, psittacosis, and salmonellosis; (c) Allergic reactions; (d) Exposure to animal wastes; and (e) Handling animals or their bedding without proper handwashing afterward. (3) Written policies or procedures required under subsection (2) of this section shall address service animals in the school facility that are not well behaved or present a risk to health and safety.

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-130
Imminent Health Hazard

Summary of changes: 130 Imminent Health Hazard

- **New Section**: Sets prescribed imminent health hazard requirements for hazards like sewage spillage

Language Comparison: 130 Imminent Health Hazard

246-370-130 Draft	246-366-	246-366A-020
(1) If a school official identifies a condition that could pose an imminent health hazard, a school official shall:		
(a) Immediately consult with the local health officer to investigate the suspected hazard;		(ii) Promptly notify the local health officer; and
(b) Take immediate action to mitigate hazards and prevent exposure if an imminent health hazard is confirmed; and		(c) When conditions are identified that pose an imminent health hazard: (i) Take immediate action to mitigate hazards and prevent exposure;
(c) A school may consult with the local health officer in developing appropriate health and safety messages for school staff, students, and parents.		(iii) Promptly inform school facility staff, students, and parents about the conditions and actions taken in response.
		(d) Retain for at least six years, unless otherwise required by other state or federal laws, records pertaining to: (ii) Imminent health hazards identified under this section and WAC 246-366A-190, and actions taken in response;
(2) If a local health officer identifies a condition that is an imminent health hazard at a school, the local health officer shall: (a) Immediately inform school officials of the imminent health hazard; ents.		
(b) Consult with school officials to mitigate hazards and prevent exposure; and		
(c) If requested, assist school officials in developing health and safety messages for school staff, students, and par		

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-140 Playgrounds

Summary of changes: 140 Playgrounds

- **New Section**: Sets prescribed installation and maintenance requirements for playgrounds

Language Comparison: 140 Playgrounds

246-370-140 Draft	246-366-	246-366A-150 & -155
(1) A school official shall: (a) Consult with the local health officer regarding playground review and approval requirements prior to: (i) Installing new playground equipment or fall protection surfaces; (ii) Adding new playground features or equipment to an existing playground; or (iii) Modifying existing playground equipment, features, or fall protection surfaces;		-150(1) School officials shall: (a) Consult with the local health officer regarding playground review and approval requirements consistent with the scope of the project when proposing to: (i) Install new playground equipment or fall protection surfaces; (ii) Add new playground features or equipment to an existing playground; or (iii) Modify, other than repair and maintain, existing playground equipment, features, or fall protection surfaces.
(b) Install, maintain, and operate playground equipment, including used equipment, and fall protection surfaces: (i) In a manner consistent with the ASTM F 1487-21: Standard Consumer Safety Performance Specification for Playground Equipment for Public Use; and		-150(c) Install playground equipment, including used equipment, and fall protection surfaces: (i) That meet the ASTM F 1487-01: Standard Consumer Safety Performance Specification for Playground Equipment for Public Use; and
(ii) In a manner consistent with the manufacturer's instructions and Consumer Product Safety Commission Handbook for Public Playground Safety, 2010;		-150(ii) In a manner that is consistent with the manufacturer's instructions and Consumer Product Safety Commission Handbook for Public Playground Safety, 2008.
(c) Provide playground plans and equipment specifications and any additional information the local health officer requests;		-150(b) If required by the local health officer after consultation: (i) Provide playground plans and equipment specifications and any additional information the local health officer requests; and
(d) Obtain plan review and written approval from the local health officer before installing, adding, or modifying playground equipment or fall protection surfaces; and		-150(ii) Obtain plan review and written approval from the local health officer before installing, adding, or modifying playground equipment or fall protection surfaces.

(2) The local health officer shall: (a) Consult with a school official to determine requirements for playground plan review and approval consistent with the scope of the project;		-150(2) The local health officer shall: (a) Consult with school officials to determine what is required for playground plan review and approval consistent with the scope of the project.
(b) Review playground plans and equipment specifications to confirm that the requirements of these rules are addressed;		-150(b) If playground review and approval is required: (i) Review playground plans and equipment specifications to confirm that the requirements of these rules are addressed;
(c) Identify and request any additional documents required to complete the review;		-150(ii) Identify and request any additional documents required to complete the review;
(d) Provide written approval or denial of the playground plans and equipment specifications within 30 days of receiving all documents needed to complete the review unless the school officials and the local health officer agree to a different timeline;		-150(iii) Provide written approval or denial of the playground plans and equipment specifications within thirty days of receiving all documents needed to complete the review, unless the school officials and the local health officer agree to a different timeline; and
(e) Verify that playground installation complies with the requirements of this section; and		-150(iv) Verify that playground installation complies with requirements of this section.
(f) Coordinate all playground-related inspections with the school official.		-150(c) Coordinate all playground-related inspections with school officials.
(3) The use of chromated copper arsenate or creosote-treated wood to construct or install playground equipment, landscape structures, or other structures on which students may play is prohibited.		-155(d) Prohibit the use of chromated copper arsenate or creosote treated wood to construct or install playground equipment, landscape structures, or other structures on which students may play.

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-150
Specialized Rooms

Summary of changes: 150 Specialized Rooms

- **New Section**: Sets prescribed requirements for specialized rooms like health rooms, laboratories, and wood shops

Language Comparison: 150 Specialized Rooms

246-370-150 Draft	246-366-140	246-366A-060, -110, -160, & -165
A school official shall ensure specialized rooms that are part of a school facility include, if applicable: (1) Single-use soap and single-use towels at handwashing sinks.		-160 School officials shall: (4) Provide handwashing and appropriate drying facilities in an easily accessible location in each laboratory and shop.
(2) Emergency washing facilities: (a) An emergency shower must be provided: (i) When there is potential for major portions of a person's body to contact corrosives, strong irritants, or toxic chemicals; and	(2) In new construction, chemistry laboratories shall be provided with an eyewash fountain and a shower head for flushing in cases of chemical spill and clothing fires. If more than one laboratory is provided, one of each fixture will be adequate if the laboratories are in close proximity.	-160(2) Provide an emergency shower for each laboratory where hazardous materials are used and the potential for chemical spills exists.
(ii) That delivers water to cascade over the user's entire body at a minimum rate of 20 gallons (75 liters) per minute for fifteen minutes or more.		-010(12) "Emergency shower" means a hand-activated shower that delivers tepid potable water to cascade over the user's entire body at a minimum rate of 20 gallons (75 liters) per minute for at least fifteen minutes.
(b) An emergency eyewash fountain must be provided: (i) When there is potential for a person's eyes to be exposed to corrosives, strong irritants, or toxic chemicals;		-160(1) Provide an emergency eyewash fountain for each laboratory and shop where hazardous materials are used or eye irritants are produced.
(ii) That irrigates and flushes both eyes simultaneously while the user holds their eyes open;		-010(11) "Emergency eye wash" means a hands-free device that: (a) Irrigates and flushes both eyes simultaneously with tepid potable water;
(iii) With an on-off valve that activates in one second or less and remains on without user assistance until intentionally turned off; and		-010(b) Activates an on-off valve in one second or less and remains on without user assistance until intentionally turned off; and
(iv) That delivers at least 0.4 gallons (1.5 liters) of water per minute for fifteen minutes or more.		-010(c) Delivers at least 0.4 gallons (1.5 liters) of water per minute for at least fifteen minutes.

(c) Emergency washing facilities must: (i) Be located so that it takes no more than 10 seconds to reach and no more than 50 feet;		-160(3) Assure that all emergency eyewash fountains and showers have unobstructed access and are reachable within ten seconds.
(ii) Be kept free of obstacles blocking their use;		
(iii) Function correctly; and		
(iv) Provide the quality and quantity of water that is satisfactory for the emergency washing purposes.		
(d) The design, installation, and maintenance of emergency washing facilities must meet the American National Standards Institute (ANSI) publication Z358.1 - 2014, American National Standard for Emergency Eyewash and Shower Equipment.		
		-160(6) Provide all stationary machinery in laboratories and shops with magnetic-type switches to prevent machines from automatically restarting upon restoration of power after an electrical failure or activation of the emergency shut-off.
(3) A prohibition of use and storage of compounds that are: (a) Considered shock-sensitive explosives, for example, picric acid, dinitro-organics, isopropyl ether, ethyl ether, tetrahydrofuran, dioxane; or		-165 In laboratories and shops, school officials shall: (1) Select, label, use, store and dispose of hazardous materials in accordance with WAC 246-366A-065. (2) Prohibit use and storage of compounds that are: (a) Considered shock-sensitive explosives, for example, picric acid, dinitro-organics, isopropyl ether, ethyl ether, tetrahydrofuran, dioxane; or
(b) Lethal at low concentrations when inhaled or in contact with skin, for example, pure cyanides, hydrofluoric acid, toxic compressed gases, mercury liquid and mercury compounds, and chemicals identified as the P-list under WAC 173-303-9903.		-165(b) Lethal at low concentrations when inhaled or in contact with skin, for example, pure cyanides, hydrofluoric acid, toxic compressed gases, mercury liquid and mercury compounds, and chemicals identified as the P-list under WAC 173-303-9903.
(4) Safety procedures and process for instructing students regarding the proper use of hazardous materials or equipment.		-165(3) Adopt safety procedures and processes for instructing students regarding the proper use of hazardous materials and equipment.

(5) Appropriate personal protective equipment when exposure to potential hazards might occur.		-165(4) Provide and require use of appropriate personal protective equipment when exposure to potential hazards might occur. Potential hazards include, but are not limited to hazardous material exposures, burns, cuts, and punctures.
(6) Appropriate situation-specific emergency equipment is available when exposure to potential hazards might occur.		-160(5) Provide situation-specific emergency and protective equipment during demonstrations with hazardous materials and with hazardous procedures. Examples of protective equipment include, but are not limited to, safety shields for eyes, protective gloves that are fire retardant and chemical resistant, respiratory protection, and fire extinguishers.
(7) Appropriate ventilation, source capture system, or other equipment approved by the local health officer to prevent the recirculation of air into the room or transfer of airflow into other parts of the school facility and to prevent contaminant from entering the students breathing zone.		-160(7) Provide mechanical exhaust ventilation in hazardous material storerooms, and in laboratories and shops where equipment or activities may produce air contaminants of public health importance. (8) When activities or equipment in laboratories or shops produce air contaminants of public health importance, provide an appropriate source capture system to prevent those contaminants from entering the student's breathing zone. These activities and equipment include, but are not limited to, spray painting, welding, pottery kilns, chemistry experiments, and wood-working. (9) Design ventilation systems to operate so that air is not recirculated and does not flow from the laboratory or shop to other parts of the school facility. Open plenum air returns consisting of the space above suspended ceilings in laboratories and shops must not be used to recirculate air to other parts of the school facility.
(8) If a school facility includes a designated health room, a school official shall ensure that the health room includes: (a) The means to visually supervise and provide privacy for room occupants;		-060(8) Provide the following items for health rooms, if health rooms are provided: -060(a) The means to visually supervise and provide privacy of room occupants;
(b) Surfaces that staff can easily clean and sanitize;		-060(b) Surfaces that can be easily cleaned and sanitized;

(c) A handwashing sink in the room;		-060(c) A handwashing sink in the room;
(d) An adjoining restroom; and		-060(d) An adjoining restroom; and
(e) Mechanical exhaust ventilation that ensures that air does not flow from the health room to other parts of the school facility.		-060(e) Mechanical exhaust ventilation so that air does not flow from the health room to other parts of the school facility
(9) Emergency shut-off valves or switches for gas and electricity connected to stationary machinery are installed during new construction. Valves or switches must: (a) Be located close to the room exit door;		-160(5) Provide emergency shut-offs for gas and electricity connected to stationary machinery in laboratories and shops. Emergency shut-offs must: (a) Be located in close proximity to the room exit door;
(b) Have unobstructed access; and		-160(b) Have unobstructed access; and
(c) Have signage posted adjacent to the valve that room occupants can easily read and understand from the opposite side of the room during an emergency.		-160(c) Have signage readable from across the room for immediate identification during an emergency.

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-160
Variances

Summary of changes: 160 Variances

- **Updated**: Language—no substantive changes

Language Comparison: 160 Variances

246-370-160 Draft	246-366-020	246-366A-150, -170, & -175
(1) School officials may: (a) Submit a written variance request to the local health officer if there is an alternative that meets the intent of chapter 246-370 WAC. The variance request must include:	The secretary may allow the substitution of procedures or equipment for those outlined in these regulations, when such procedures or equipment have been demonstrated to be equivalent to those heretofore prescribed. When the secretary judges that such substitutions are justified, he shall grant permission for the substitution in writing. Requests for substitution shall be directed to the jurisdictional health officer who shall immediately forward them, including his recommendations, to the secretary. All decisions, substitutions, or interpretations shall be made a matter of public record and open to inspection.	-170(1) School officials: (a) May request a variance from requirements in these rules from the local health officer if they wish to use an alternative to meet the intent of these rules.
(i) The specific regulations that the variance would replace;		-170(i) The request for a variance must be in writing and describe: (A) The specific requirement the variance is requested to replace;
(ii) The alternative that is proposed to replace the required regulation;		-170(B) The alternative proposed to meet the specific requirement; and
(iii) A description of how the variance will provide a comparable level of protection as the regulation that it will replace;		-170(C) How the proposed alternative will provide at least a comparable level of protection as that provided by the specific requirement.
(iv) Any clarifying documentation needed to support the request including but not limited to engineering reports, scientific data, or photos.		-170(ii) The request for a variance must include information as needed to support and clarify the request, such as material descriptions and specifications, engineering reports, photos, drawings, or sketches.
(v) May implement a variance only after obtaining approval from the local health officer.		-170(b) May implement a variance only after obtaining approval from the local health officer.
		-170(2) The local health officer shall: (a) Initially review documents submitted with the

		request for a variance and inform school officials if additional information is required.
		-170(b) Compare the health and safety aspects of the specific requirement being addressed and the variance proposal to determine if the proposal provides at least a comparable level of protection as that provided by the specific requirement.
(2) The local health officer shall: (a) Provide written approval or denial of a request for a variance to the school applicant and the department within 60 days of receiving a complete written variance request, unless the school official and the local health officer agree to a different timeline.		-170(c) Provide written approval or denial of a request for a variance within sixty days of receiving a complete written request, unless school officials and the local health officer agree to a different timeline.
		-170(d) Submit an annual written report to the department regarding all variance requests. The report must be submitted by March 1st of each year, beginning the third year after the effective date of this section, and cover the calendar period January through December of the previous year.
(3) The local health officer may grant a school official an emergency waiver from some or all of the requirements in these rules: (a) For the use of a temporary facility if the facility normally used by the school is not safe to be occupied; or (b) If a school can safely remain in operation during an imminent health hazard.		-175 The local health officer may grant school officials an emergency waiver from some or all of the requirements in these rules for the temporary use of a facility or site as a school when the facility normally used by the school is not safe to be occupied due to a natural or man-made disaster.
		-150 The board of health may, at its discretion, exempt a school from complying with parts of these regulations when it has been found after thorough investigation and consideration that such exemption may be made in an individual case without placing the health or safety of the students or staff of the school in danger and that strict enforcement of the regulation would create an undue hardship upon the school.

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-170
Severability

Summary of changes: 170 Severability

- **Updated**: Language—no substantive changes

Language Comparison: 170 Severability

246-370-170 Draft	246-366-160	246-366A-200
If any provision of this chapter or its application to any person or circumstance is held invalid, the remainder of the chapter or the application of the provision to other persons or circumstances is not affected.	If any provision of this chapter or its application to any person or circumstance is held invalid, the remainder of the chapter or the application of the provision to other persons or circumstances is not affected.	If any provision of this chapter or its application to any person or circumstance is held invalid, the remainder of the chapter or the application of the provision to other persons or circumstances is not affected.

WASHINGTON STATE BOARD OF HEALTH

School Environmental Health and Safety Rule Project 2024 2025

WAC 246-370-180
Appeals

Summary of changes: 180 Appeals

- **Updated**: Language—no substantive changes

Language Comparison: 180 Appeals

246-370-180 Draft	246-366-	246-366A-180
(1) Environmental health and safety decisions or actions of the local health officer may be appealed to the local board of health.		Decisions or actions of the local health officer may be appealed to the local board of health in a manner consistent with their established procedure.
(2) Environmental health and safety appeals will be conducted in a manner consistent with the written procedure within each office.		

Chapter Topics and Committee Meetings

WAC Chapter	Committee Meeting
WAC 246-370-001 Purpose	August 22, 2024
WAC 246-370-005 Definitions	August 22, 2024 September 17, 2024
WAC 246-370-010 Applicability	August 22, 2024
WAC 246-370-015 Guidance	December 16, 2024
WAC 246-370-020 Site Assessment	October 4, 2024
WAC 246-370-030 Construction Plan Review New, Alterations, and Portable	October 4, 2024 November 20, 2024
WAC 246-370-040 Routine Inspection	October 4, 2024 November 20, 2024 December 4, 2024
WAC 246-370-050 General Building Requirements	October 17, 2024
WAC 246-370-060 Showers and Restrooms	October 4, 2024
WAC 246-370-070 Ventilation	October 31, 2024 November 20, 2024
WAC 246-370-080 Indoor Air Quality	November 20, 2024
WAC 246-370-090 Temperature	October 31, 2024
WAC 246-370-100 Noise	October 31, 2024 November 20, 2024
WAC 246-370-110 Lighting	December 4, 2024
WAC 246-370-120 Injury Prevention	October 17, 2024
WAC 246-370-130 Imminent Health Hazard	October 4, 2024
WAC 246-370-140 Playgrounds	October 17, 2024
WAC 246-370-150 Specialized Rooms	December 4, 2024
WAC 246-370-160 Variances	September 17, 2024
WAC 246-370-170 Severability	September 17, 2024
WAC 246-370-180 Appeals	September 17, 2024

History of the School Environmental Health and Safety Rule

In 2024, the Washington State Legislature directed the Board of Health (Board) to review existing school environment health and safety rules. They asked the Board to propose updated standards for K-12 schools throughout Washington state. They enacted this proviso to ensure that the 50-year-old standards aligned with current science-based health and safety concerns for Washington's students.

The current rules under Chapter 246-366 [1] of the Washington Administrative Code (WAC) set the current standards for regulating K-12 school environmental health and safety for over one million students. These standards are over 50 years old and are outdated.

In 2004, the Board initiated rulemaking to update these rules and spent five years creating and adopting chapter 246-366A [2] WAC, but the rules were never implemented.

During the 2009 – 2011 Washington state operating budget bill, the Legislature included the following proviso:

"The department of health and the state board of health shall not implement any new or amended rules pertaining to primary and secondary school facilities until the rules and a final cost estimate have been presented to the legislature, and the legislature has formally funded implementation of the rules through the omnibus appropriations act or by statute."

Every budget since 2010 has included the proviso. In response, the Board has continued to extend the effective date of Chapter 246-366A.

In 2024, the Legislature included a second budget proviso. The 2024 supplemental operating budget [3] (proviso) directs the Board to review chapters 246-366 and 246-366A WACs. The proviso also directs the Board to propose updated environmental health and safety standards for K–12 schools in Washington state.

In August 2024, the School Environmental Health and Safety Rule project convened the first meeting of the technical advisory committee and over the next five months met regularly to review the existing standards and propose new language for the rule. The committee includes representatives from school districts, local health jurisdictions, parent-teacher organizations, and private schools.

The rule is now available for public comment through February 9, 2025. The Board will collect comments and feedback from the community on the proposed language for the proposed chapter 246-370 WAC. The committee will review the feedback to determine if the rule adequately sets minimum health and safety standards for Washington K-12 schools.

[1] https://apps.leg.wa.gov/WAC/default.aspx?cite=246-366&full=true&pdf=true
[2] https://apps.leg.wa.gov/wac/default.aspx?cite=246-366A&full=true&pdf=true
[3] https://fiscal.wa.gov/statebudgets/2024proposals/Documents/co/5950-S.SL.pdf

School Rule Project Update

Andrew Kamali, School Rule Project Manager
Nina Helpling, Policy Analyst

January 8, 2025

WASHINGTON STATE BOARD OF HEALTH

Board Authority

- The Board's primary authority for school environmental health and safety is housed in RCW 43.20.050 in subsection 2:
  - (d) Adopt rules controlling public health related to environmental conditions including but not limited to heating, lighting, ventilation, sanitary facilities, and cleanliness in public facilities including but not limited to food service establishments, schools, recreational facilities, and transient accommodations;
- The Board's primary enforcement is found under the same RCW in subsection 5:
  - All local boards of health, health authorities and officials, officers of state institutions, police officers, sheriffs, constables, and all other officers and employees of the state, or any county, city, or township thereof, shall enforce all rules adopted by the state board of health.
- The Board also has authority to prevent the spread of disease in schools found in RCW 28A.210.010:
  - The state board of health, after consultation with the superintendent of public instruction, shall adopt reasonable rules regarding the presence of persons on or about any school premises who have, or who have been exposed to, contagious diseases deemed by the state board of health as dangerous to the public health.

Budget Proviso

- State appropriation for fiscal year 2025 is provided solely to review and update the rules for school environmental health and safety.
- Collaborate with the office of the superintendent of public instruction and develop a fiscal analysis.
- Assist the department in completing environmental justice assessments on any proposed rules.
- The office of the superintendent of public instruction, the department, the state board of health, the advisory committee, and local health jurisdictions shall work collaboratively to develop and provide a report to the office of the governor and appropriate committees of the legislature by June 30, 2025.

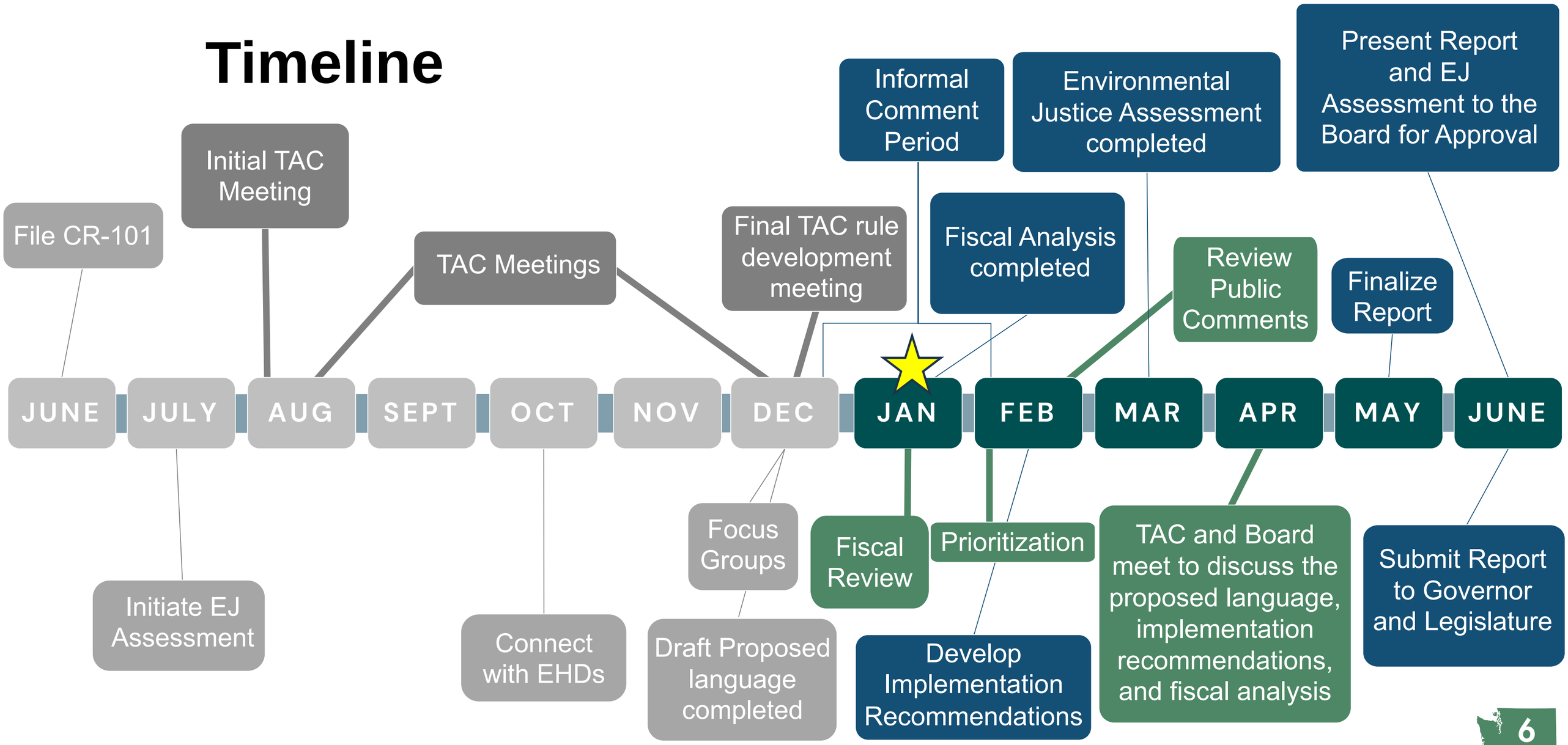
Deliverables

- New draft proposed rules
- Environmental Justice Assessment
- Fiscal Analysis
- Report recommending implementation priorities for Governor’s office and Legislature

Technical Advisory Committee

- Required Members
  - Office of Superintendent of Public Instruction
  - Small & Large School Districts
  - Washington Association of School Administrators
  - Washington State School Directors' Association
  - Washington Association of Maintenance and Operation Administrators
  - Washington Association of School Business Officials
- Additional Members
  - Washington Education Association
  - Small & Large Local Health Jurisdictions
  - Parent Teacher Association
  - Private Schools
  - Tribal-Compact Schools
  - Overburdened Communities
  - Washington Association of School Principals
  - Department of Health

Timeline


File CR-101
Initial TAC Meeting
TAC Meetings
Final TAC rule development meeting
Informal Comment Period
Fiscal Analysis completed
Environmental Justice Assessment completed
Review Public Comments
Present Report and EJ Assessment to the Board for Approval
Finalize Report
JUNE
JULY
AUG
SEPT
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUNE
Initiate EJ Assessment
Connect with EHDs
Focus Groups
Draft Proposed language completed
Fiscal Review
Develop Implementation Recommendations
Prioritization
TAC and Board meet to discuss the proposed language, implementation recommendations, and fiscal analysis
Submit Report to Governor and Legislature

Deliverable: New Proposed Rule

Rulemaking Process – Chapter 246-370 WAC

- Review of Chapter 246-366 WAC – Currently effective rule
- Review of Chapter 246-366A – Suspended rule
- 10 to 12 Technical Advisory Committee Meetings
- Informal Comment Period
- Review Meeting
- Board Review and Approval
- Legislature and Governor Review and Approval

Deliverable: New Proposed Rule

Retained and Removed Language

- 2 Sections have been retained
- 3 Sections have been reformatted/retitled
- 2 Sections have been removed

Deliverable: New Proposed Rule

New Sections

- 3 new sections have been added
  - Applicability
  - Indoor Air Quality
  - Specialized Rooms
- New references to current state law and rules:
  - Lead Testing in Schools (RCW 43.70.830)
  - Foundational Quality Standards for School-Age Programs (WAC 110-301)

Deliverable: Environmental Justice Assessment

Environmental Justice

- Healthy Environment for All (HEAL) Act
  - Goal of eliminating environmental and health disparities among communities of color and low-income households. It is the first statewide law in Washington to create a coordinated state agency approach to environmental justice.
- The Assessment
  - The Board is working closely with partners at the Department of Health to develop a comprehensive report and intentional engagement with communities most affected by school environmental health and safety issues.

Deliverable: Environmental Justice Assessment

Community and Regulated Community Engagement

- Tribal Engagement
  - Dear Tribal Leader Letter (June 2024)
  - Tribal Listening Session (July 2024)
  - ONE STEC Convening
- Community Engagement
  - 7 in-person listening sessions
  - 2 fully remote listening sessions
  - 5 Focus Groups
- Regulated Entities Engagement
  - Executive Principals Meeting
  - Heads of School Meeting
  - WSSDA Annual Conference
  - LHJ Outreach and Education

Deliverable: Fiscal Analysis

Fiscal Impacts & Possible Conflicts

- Key areas
  - Indoor Air Quality
  - Temperature
  - Specialized Rooms
- Coordination
  - OSPI
  - Industry
  - Interested Parties
- Possible conflicts
  - Clean Buildings Performance Standards
  - State Building Code
- Fiscal Analysis Report
  - Cost per sqft
  - Regional cost differences
  - Cost differences related to age of school facility

Deliverable: Implementation Priorities Report

Implementation Recommendations Process

- In collaboration with the TAC, the Board will develop recommendations on which sections of the proposed rule should be prioritized for funding and implementation.
- The TAC will meet in February and March to identify the areas they recommend the Board prioritize to the Legislature and Governor’s Office.

Key Upcoming Dates

- Informal Comment Period:
  December 20, 2024 – February 9, 2025
- Fiscal Summit:
  January 15 and 16, 2025
- Board and TAC Meeting:
  April 9, 2025
- Board finalizes and approves report:
  June 11, 2025

WASHINGTON STATE BOARD OF HEALTH

THANK YOU

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ACCESSIBILITY AND THE AMERICANS WITH DISABILITIES ACT (ADA)

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- Our agency, website, and online services follow the Americans with Disabilities (ADA) standards, Section 508 of the Rehabilitation Act of 1973, Washington State Policy 188, and Web Content Accessibility Guidelines (WCAG) 2.0, level AA. We regularly monitor for compliance and invite our users to submit a request if they need additional assistance or would like to notify us of issues to improve accessibility.
- We are committed to providing access to all individuals visiting our agency website, including persons with disabilities. If you cannot access content on our website because of a disability, have questions about content accessibility or would like to report problems accessing information on our website, please call (360) 236-4110 or email wsboh@sboh.wa.gov and describe the following details in your message:
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We will make every effort to provide you the information requested and correct any compliance issues on our website.

WASHINGTON STATE BOARD OF HEALTH

Date: January 8, 2025

To: Washington State Board of Health Members

From: Kelly Oshiro, Board Member

Subject: 2024 Newborn Screening Criteria Review Project

Background and Summary:

The Washington State Board of Health (Board) has the authority under RCW 70.83.050 to adopt rules for screening Washington-born infants for hereditary conditions. WAC 246-650-010 defines the conditions, and WAC 246-650-020 lists the conditions on the state's required newborn screening panel.

The Board has a process it follows when considering new conditions for inclusion on the state's newborn screening panel. To determine which conditions to include, the Board may convene an advisory committee to evaluate candidate conditions using guiding principles and an established set of criteria.

During the November 2024 Board meeting, the Board approved the following recommendations from the Newborn Technical Advisory Committee (TAC):

1) All conditions added to the Federal Recommended Uniform Screening Panel (RUSP) meet the Board's qualifying assumption.
2) The Board should continue convening TACs to review conditions on the RUSP to determine if they should be added to Washington's mandatory newborn screening panel using the state's criteria.
3) The Board should convene a TAC to review a condition within two years of its addition to the RUSP.

Board staff also brought forward additional considerations regarding petitions for conditions that are undergoing federal review or have been denied addition to the federal RUSP:

- For petitions or review requests concerning conditions under review by the Advisory Committee on Heritable Disorders in Newborns and Children (ACHDNC), the Board should delay convening a TAC until the ACHDNC has made a final decision.
- For petitions or requests related to conditions that have previously been reviewed and rejected by the ACHDNC for inclusion on the RUSP, Board staff may work with the petitioner to address any deficiencies or recommendations identified by the ACHDNC as a part of Washington's initial evidence review.

With the adoption of the TAC's recommendations to review RUSP conditions, the Board must conduct reviews for MPS-II and Krabbe disease. These conditions were added prior to the Board's approval November 2024.

(continued on next page)

Recommended Board Action:

The Board may wish to consider and amend, if necessary, the following motion:

For the conditions MPS-II and Krabbe Disease that were added to the RUSP prior to the Board's recommendations, the two-year review timeline begins from the November 2024 Board recommendation date instead of date of the federal recommendations.

- The TACs for MPS-II and Krabbe Disease must be completed by November 2026.

Staff

Kelly Kramer, Newborn Screening Policy Advisor

Washington State Board of Health

Newborn Screening Updates and RUSP Considerations

Kelly Kramer, Policy Advisor – January 8, 2025

WASHINGTON STATE BOARD OF HEALTH

Newborn Screening Updates

Recap November Board meeting

The Board approved the following motion:

- The Board accepts the Newborn Screening TAC's recommendation for the Board to assume that conditions on the Federal Recommended Uniform Screening Panel (RUSP) meet the Board's qualifying assumption. The Board directs staff to update the Boards Newborn Screening (NBS) Process and Criteria document and include 2- year timeframe to review RUSP conditions.
- The Board also directs the TAC to continue the review of criteria at the next TAC meeting.

Further Considerations for Petitions:

- Conditions undergoing federal review, the Board will wait until federal review is complete before conducting review
- Conditions previously denied for the RUSP, Board staff will work with petitioner to address issues or concerns raised by the federal review

Newborn Screening Updates

RUSP Conditions not on Washington's Mandatory NBS Panel:

- Mucopolysaccharidosis type II (MPS-II) - Added to the RUSP August 2022
- Infantile Krabbe Disease - Added to the RUSP June 2024
- Guanidinoacetate Methyltransferase (GAMT) Deficiency - Added to the RUSP January 2023
  - CR-101 filed November 2023, hearing pending
- Hearing loss - added to the RUSP July 2005

Conditions to be reviewed by the Board:

- Branch-chain Ketoacid Dehydrogenase Kinase (BCKDK) Deficiency
  - As directed by Senate Bill 6234
- Congenital Cytomegalovirus (cCMV)
  - As directed by Senate Bill 5829
- Wilson's Disease
  - By petition received August 2024

Board Member Discussion

Possible action:
The Board may consider the following

- For the conditions MPS-II and Krabbe Disease that were added to the RUSP before the Board's recommendations, the two-year review timeline begins from the November 2024 Board recommendation date instead of the date of the federal recommendations.
  - The TACs for MPS-II and Krabbe Disease must be completed by November 2026

THANK YOU

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Washington State Board of Health

PROCESS TO EVALUATE CONDITIONS FOR INCLUSION IN THE REQUIRED NEWBORN SCREENING PANEL

Last updated November 13, 2024

Amended Section (Approved November 2024)
The Washington State Board of Health (Board) has the duty under RCW 70.83.050 to define and adopt rules for screening Washington-born infants for heritable conditions. Chapter 246-650-020 WAC lists conditions for which all newborns must be screened. Members of the public, staff at Department of Health (Department), and/or Board members can request that the Board review a particular condition for possible inclusion in the newborn screening (NBS) panel. ~~In order to~~ To determine which conditions to include in the ~~newborn screening~~ NBS panel.~~,~~ the Board convenes a~~n~~ newborn screening technical advisory committee (TAC) to evaluate candidate conditions using guiding principles and an established set of criteria.

~~The following is a description of~~ This document describes the Qualifying Assumption, Guiding Principles, and Criteria ~~which~~ the Board has approved ~~in order~~ to evaluate conditions for possible inclusion in the newborn screening panel. The ~~Washington State Board of Health~~ Board and Department ~~of Health~~ apply the qualifying assumption. The Board-appointed Newborn Screening ~~Advisory Committee~~ TAC applies the following three guiding principles and evaluates the five criteria ~~in order~~ to make recommendations to the Board on which condition(s) to include in the state's required NBS panel.

QUALIFYING ASSUMPTION

Amended Section (Approved November 2024)
Before ~~an advisory committee is convened~~ the Board convenes a TAC to review a candidate condition against the ~~Board's~~ five newborn screening ~~requirements~~ criteria, staff should complete a preliminary review ~~should be done~~ to determine ~~there is~~ whether sufficient scientific evidence is available to apply the criteria for inclusion. If the candidate condition is on the Health Resources and Services Administration (HRSA) Recommended Uniform Screening Panel (RUSP), the Board and Department will consider the qualifying assumption met and convene a TAC.

New Section (Approved November 2024)
A note on the RUSP: The RUSP is a list of conditions that the Secretary of the Department of Health and Human Services (HHS) recommends states screen for as part of their newborn screening programs. Once the HHS Secretary recommends a new condition, the Board and Department will review it for possible inclusion in the Washington NBS panel within two years of the recommendation.

New Section (Pending Board Approval)

Conditions pending RUSP Review or Previously Denied for the RUSP: RCW 34.05.330 of the Administrative Procedures Act (APA) allows any person to petition a state agency to adopt, repeal, or amend any rule within its authority. Agencies must respond to the petitioner within 60 days. If the agency accepts the petition, it must initiate rulemaking. An agency can deny the request for rulemaking, and in doing so, it must explain its reasons and, if appropriate, describe alternative steps it is prepared to take.

If the Board receives a petition for rulemaking regarding a candidate condition currently under review for the RUSP, the Board will wait until the federal committee finishes its review and the HHS Secretary makes a final decision before convening a TAC. For petitions involving conditions that have already been reviewed and denied inclusion on the RUSP, the Board will instruct staff to work with the petitioner to determine if concerns raised during the federal review have been addressed before recommending the Board convene a TAC to review the condition.

THREE GUIDING PRINCIPLES

Three guiding principles govern all aspects of the evaluation of a candidate condition for possible inclusion in the NBS panel.

- Decision to add a screening test should be driven by evidence. For example, test reliability and available treatment have been scientifically evaluated, and those treatments can improve health outcomes for affected children.
- All children who screen positive should have reasonable access to diagnostic and treatment services.
- Benefits of screening for the disease/condition should outweigh harm to families, children and society.

CRITERIA

1. Available Screening Technology: Sensitive, specific and timely tests are available that can be adapted to mass screening.

2. Diagnostic Testing and Treatment Available: Accurate diagnostic tests, medical expertise, and effective treatment are available for evaluation and care of all infants identified with the condition.

3. Prevention Potential and Medical Rationale: The newborn identification of the condition allows early diagnosis and intervention.
Important considerations:

- There is sufficient time between birth and onset of irreversible harm to allow for diagnosis and intervention.
- The benefits of detecting and treating early onset forms of the condition (within one year of life) balance the impact of detecting late onset forms of the condition.
- Newborn screening is not appropriate for conditions that only present in adulthood.

4. Public Health Rationale: Nature of the condition justifies population-based screening rather than risk-based screening or other approaches.

5. Cost-benefit/Cost-effectiveness: The outcomes outweigh the costs of screening. All outcomes, both positive and negative, need to be considered in the analysis. Important considerations to be included in economic analyses include:

- The prevalence of the condition among newborns.
- The positive and negative predictive values of the screening and diagnostic tests.
- Variability of clinical presentation by those who have the condition.
- The impact of ambiguous results. For example the emotional and economic impact on the family and medical system.
- Adverse effects or unintended consequences of screening.

RCW 70.83.020

Screening tests of newborn infants.

(1) It shall be the duty of the department of health to require screening tests of all newborn infants born in any setting. Each hospital or health care provider attending a birth outside of a hospital shall collect and submit a sample blood specimen for all newborns no more than forty-eight hours following birth. The department of health shall conduct screening tests of samples for the detection of phenylketonuria and other heritable or metabolic disorders leading to intellectual disabilities or physical defects as defined by the state board of health: PROVIDED, That no such tests shall be given to any newborn infant whose parents or guardian object thereto on the grounds that such tests conflict with their religious tenets and practices.

(2) The sample required in subsection (1) of this section must be received by the department [of health] within seventy-two hours of the collection of the sample, excluding any day that the Washington state public health laboratory is closed.

[2014 c 18 § 1; 2010 c 94 § 18; 1991 c 3 § 348; 1975-'76 2nd ex.s. c 27 § 1; 1967 c 82 § 2.]

RCW 70.83.030

Report of positive test to department of health.

Laboratories, attending physicians, hospital administrators, or other persons performing or requesting the performance of tests for phenylketonuria shall report to the department of health all positive tests. The state board of health by rule shall, when it deems appropriate, require that positive tests for other heritable and metabolic disorders covered by this chapter be reported to the state department of health by such persons or agencies requesting or performing such tests.

[1991 c 3 § 349; 1979 c 141 § 113; 1967 c 82 § 3.]

RCW 70.83.050

Rules and regulations to be adopted by state board of health.

The state board of health shall adopt rules and regulations necessary to carry out the intent of this chapter.

[1967 c 82 § 5.]

WASHINGTON STATE BOARD OF HEALTH

2025 Meeting Schedule

Approved by the Board November 13, 2024

Note: Precise location and meeting time will be posted to the Board's website at least two weeks in advance of the meeting.

	Meeting Date	Location
Board	**Wednesday** **January 8, 2025**	**Hybrid:** • **Physical Location; Washington State Department of Labor & Industries, 7273 Linderson Way SW Tumwater, WA 98501-5414, (LNI Auditorium)** • **Virtual Meeting via ZOOM Webinar; hyperlink provided on website and agenda. Public Attendees can pre-register and access the meeting online.**
Board	**Wednesday** **March 12, 2025**	**Hybrid:** • **Physical Location; Washington State Department of Health, 111 Israel Road S.E., Tumwater, WA 98501, Building: Town Center 2 (Rooms 166 & 167)** • **Virtual Meeting via ZOOM Webinar; hyperlink provided on website and agenda. Public Attendees can pre-register and access the meeting online.**
Board	**Wednesday** **April 9, 2025**	**Hybrid:** • **Physical Location; TBD - Washington State Department of Health, 111 Israel Road S.E., Tumwater, WA 98501, Building: Town Center 2 (Rooms 166 & 167) -OR- Washington State Department of Ecology, 300 Desmond Drive SE, Lacey, WA 98503 (public meeting rooms in basement)** • **Virtual Meeting via ZOOM Webinar; hyperlink provided on website and agenda. Public Attendees can pre-register and access the meeting online**
Board	**Wednesday** **June 11, 2025**	**Hybrid:** • **Physical Location; Washington State Department of Health, 111 Israel Road S.E., Tumwater, WA 98501, Building: Town Center 2 (Rooms 166 & 167)** • **Virtual Meeting via ZOOM Webinar; hyperlink provided on website and agenda. Public Attendees can pre-register and access the meeting online.** *(note: WA State Association of Local Public Health Officials (WSALPHO) Annual meeting is at Semiahmoo Resort in Blaine, WA, June 3-5, 2025)*

Board	**Wednesday** **July 9, 2025**	**Hold date – meet only if necessary**
Board	**Wednesday** **August 20, 2025** **(3rd Week)**	**Hybrid:** • **Physical Location; To Be Determined (TBD).** • **Virtual Meeting via ZOOM Webinar; hyperlink provided on website and agenda. Public Attendees can pre-register and access the meeting online.**
Board	**Wednesday** **October 8, 2025**	**Hybrid:** • **Physical Location; To Be Determined (TBD).** • **Virtual Meeting via ZOOM Webinar; hyperlink provided on website and agenda. Public Attendees can pre-register and access the meeting online.** *(note: WA State Public Health Association (WSPHA) Annual conference is in Yakima, October 21-23, 2025. The WSALPHO Environmental Public Health Directors meeting is Sept 30-Oct 3 in Leavenworth)*
Board	**Wednesday** **November 19, 2025** **(3rd week)**	**Hybrid:** • **Physical Location; To Be Determined (TBD), likely in Tumwater, WA at LNI or DOH** • **Meeting via ZOOM Webinar; hyperlink provided on website and agenda. Public Attendees can pre-register and access the meeting online.**

Start time is 9:30 a.m. unless otherwise specified. Time and locations subject to change as needed. See the Board of Health Web site and the Health Disparities Council Web site for the most current information.

Last updated 12/18/2024