



Image: CDC Unsplash

MONITORING FOR VAPING



November 2023 • School Environmental Health & Safety Fall Workshop

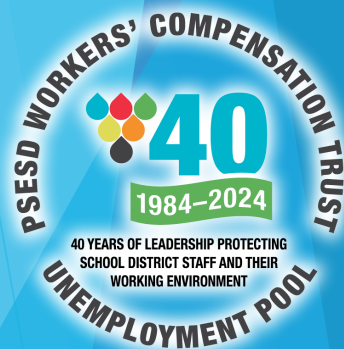
Vaping Monitoring

Elizabeth Jakab, IH, CSRM
Environmental Health Consultant

Puget Sound Workers' Compensation Trust and Unemployment Pool

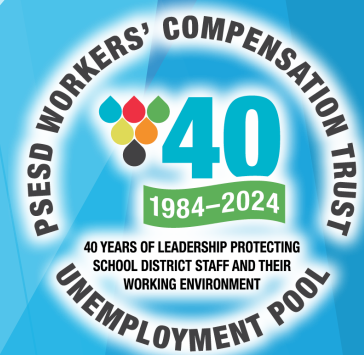
November 7, 2023

www.pswctup.org



Why Vaping Detection?

- CDC calls Vaping a national youth health crisis.
- Both health and safety issue:
 - Health: impacts the health of the vaping person and those around them – IAQ
 - Safety: “students are safe from violence, bullying and harassment, and the influence of substance use.” Feeling unsafe impacts educational achievements, increases absences, causes difficulty of focusing on learning
- Vaping intensified during and after Covid
 - Fillers other than flavors + nicotine
 - Detection and monitoring requested from parents, staff and students
 - Variety of monitoring tools to choose from, some include IAQ parameters.



Outline: Monitoring for Vaping

Elizabeth Jakab, MS, CSRSM, Environmental Health Consultant, PSESD Workers' Compensation Trust and Unemployment Pool

Ali Boris, MS, PhD, Indoor Air Quality Specialist, WA DOH

Stephanie Tortorelli, MPA, Manager, Regional Public Health & Safety, PSESD

Shannon Marshall, Principal, Stadium High school

Vape Detection – Introductory Thoughts

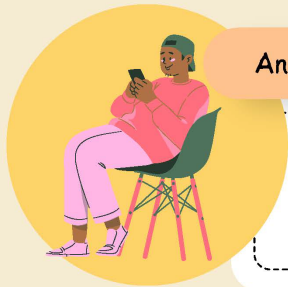
Ali Boris, MS, PhD
Indoor Air Quality Specialist
Washington DOH

Why is vaping a concern?

- “Vaping”: Heating a liquid solution, which is inhaled as an aerosol.
- [Inhalation/second-hand \(IAQ\) health and safety concerns:](#)
 - Nicotine – highly addictive, can increase risk for heart attack, stroke, lung disease.
 - Absorption/ingestion from “e-liquid” - toxic.
 - Solvents - propylene glycol, glycerin – toxic.
 - Flavors – can be toxic/not tested for inhalation/not listed.



WA DOH Vapor Product Resources & Engagement Opportunities



Anonymous Resources to Help Youth Quit

- Live Vape Free - Text VAPEFREE to 873373
- [2Morrow Health Cessation App](#) - WA DOH
- [Smokefree.gov](#) - Teen Texting Line
- [This is Quitting - The Truth Initiative](#)

For Influential Adults

[Live Vape Free](#) - a free online course to talk to teens about vaping. This online learning program is designed to provide the insights needed for getting started, tips and tools, and resources for ongoing support. [Live Vape Free](#)



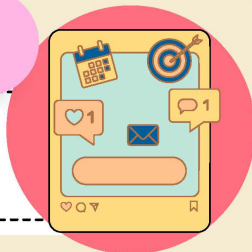
Educational Resources



Curriculums for the classroom, administrator resources, counselor resources, and more, thanks to the Prevent Coalition - [Check it out Here!](#)

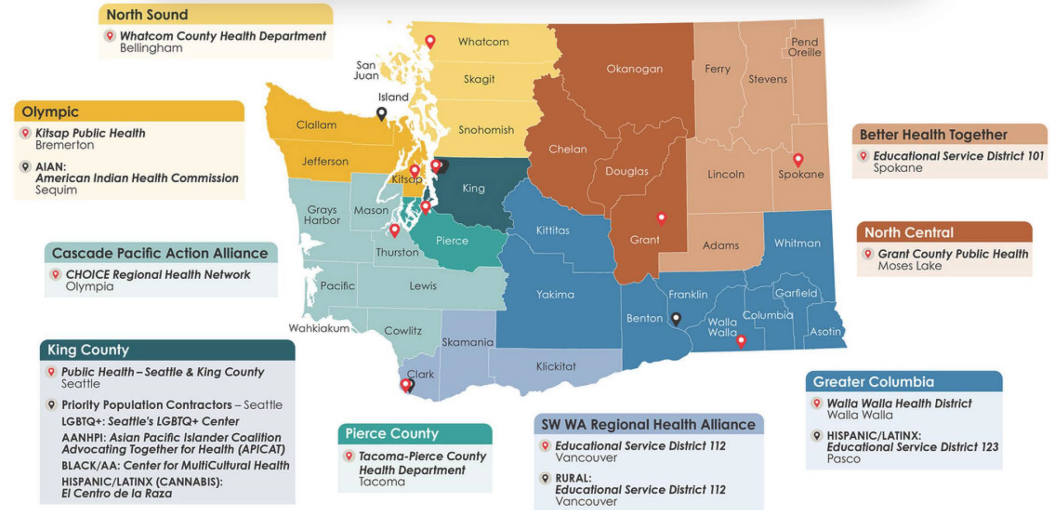
Choose You: WA Commercial Tobacco Campaign!

To address cultural norms and knowledge around vapor products use and youth, DOH developed Choose You. Learn more about the campaign at <https://chooseyouwa.org/>!



YCCTPP Contractors

Identify the appropriate contractor in your region with the map below!



Washington Breathes (State Tobacco Coalition)

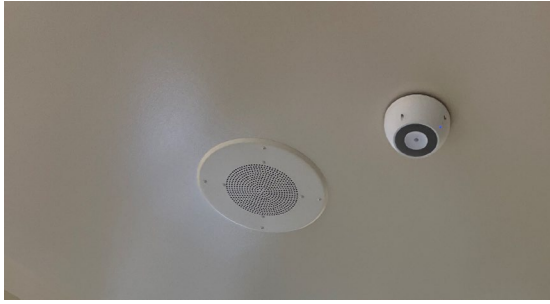
Join the Washington Breathes coalition to engage in education tools and resources preventing youth initiation to tobacco products. The coalition is made up of the following workgroups who have the capacity and interests in prevention and treatment:

- Policy work group
- Restoring Funding and Comprehensive State work group
- Supporting Healthy Youth work group
- Improving Cessation Treatment work group
- Communications work group
- Community-Based Data work group



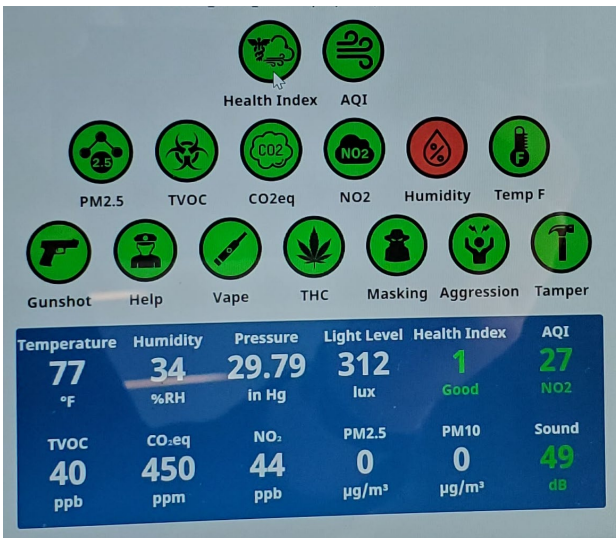
State Prevention Policy Consortium

Engage with the State Prevention Policy Consortium, comprised of representatives from 26 state and tribal agencies and organizations. The goal of the Consortium is that through partnerships we will strengthen and support an integrated, statewide system of community-driven substance misuse prevention, mental health promotion, and related issues. The Consortium is responsible for the state-level planning and implementation of collaborative strategies to address substance misuse prevention and mental health promotion.



What is vape monitoring?

- Placing and responding to sensor devices that can detect vape, THC, and/or cigarette smoke
- “Multi-parameter” devices
 - Contains several sensors for air quality, safety
 - Often linked to cameras
 - Usually has a “dashboard”



While we occasionally work with vendors to see what is out on the market, we do not endorse specific products.

Images: Ali Boris, DOH

Several words of caution

- Schools are reporting success detecting vaping activities, but ... **a plan is needed!**
 - This does not prevent vaping or support users to quit.
 - Success requires planning, staffing, action, support program for quitting
 - This is not a proven technology (proprietary algorithm).
 - Multi-parameter: This will not solve all our IAQ problems alone.
 - Each concern needs its own plan
 - No notifications doesn't mean that IAQ is good!
 - Not realistic to monitor everything, everywhere:
 - Cost (~\$1-2k/device + ~\$0-2k/install + ~ \$0-1k/data/5 years)
- Disposal is also a concern – e-liquid, batteries are hazardous waste.
 - School guidance and webinar forthcoming – Ecology/DOH

A Plan: Who monitors?

- School administrators/staff facilitate:
 - Monitoring and responding to alerts
 - Installation, tuning, interventions
 - Enforcing consequences
- School districts support:
 - Funding, approval of staff and resources
 - Installation, data connection, maintenance
 - Questions from school staff, parents



Image: CDC Unsplash



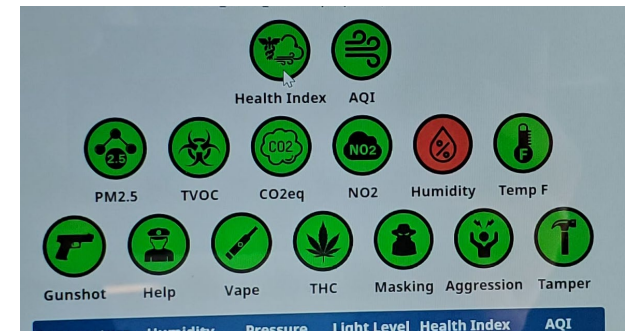
Image: Flickr Creative Commons –
Edmonton Public Schools

A Plan: Where to monitor

- Secluded spaces likely for vaping activities:
 - Bathrooms, locker rooms (access required)
 - Consider equity
 - Tampering: backpacks, paper towels - some detect movement
- May need to be near:
 - Cameras with correct angle, distance to detector
 - People to respond (camera used to act later?)
 - Signage – entrapment concerns, including guests

A Plan: Technical considerations of equipment

- Interferences:
 - Body spray, fires, other aerosol may be interferences (also alarm)
- Sensitivity:
 - Tuning may be necessary but generally easy.
 - Devices may use a “baseline” to avoid drift - sources like fragrance diffusers can be a problem.
- Costs:
 - Up front: Installation, device purchase (replacement - 5-10 years?)
 - Continued: Cloud data; maintenance - dust (false positives)
 - Calibration: Prior to install, remote/done by user if wanted





Final Thoughts

- Buying a monitor does not solve the problem alone
- Monitoring doesn't prevent, but can detect
- Planning, resources are needed—including cessation, hazardous waste handling

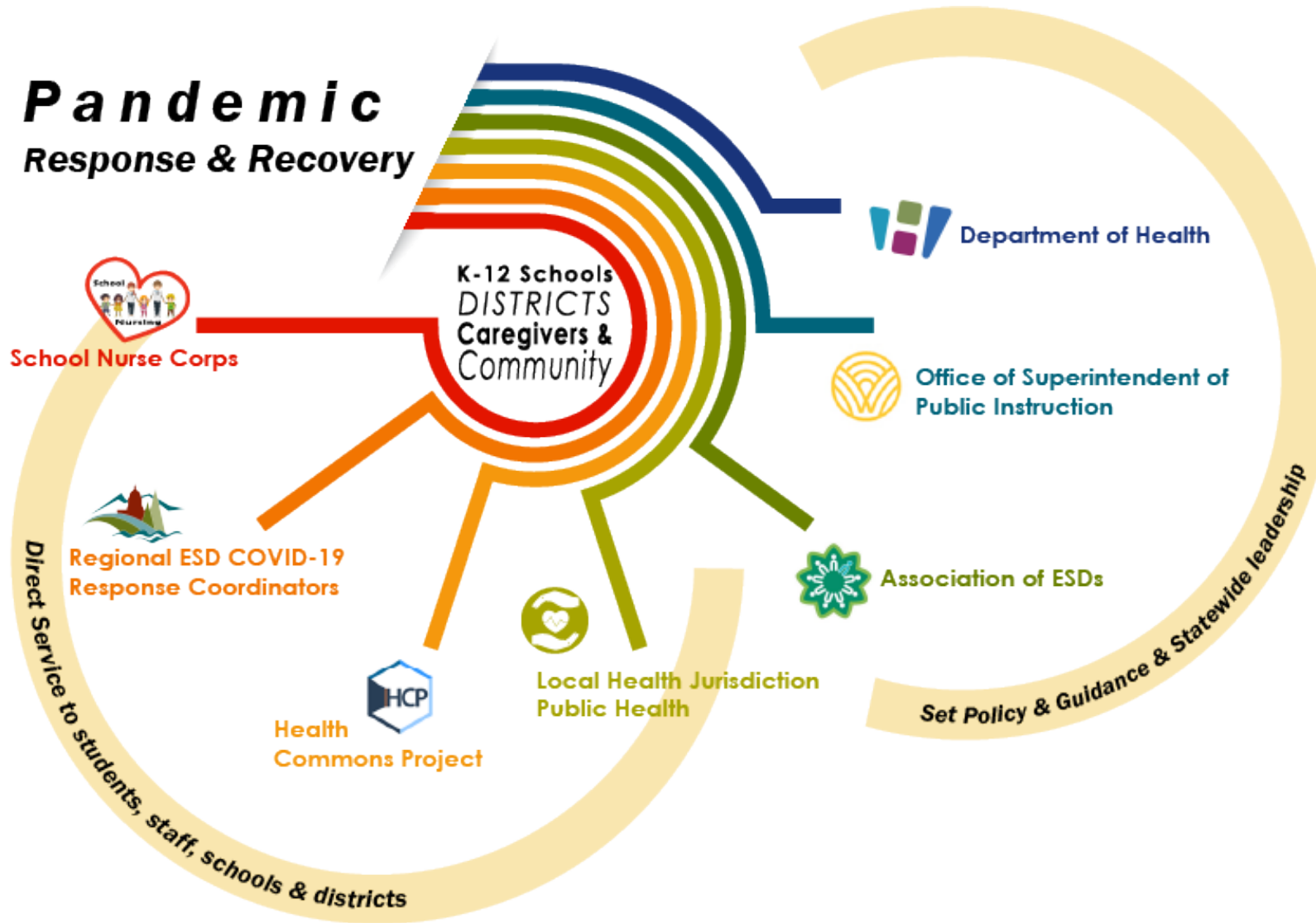
Vape Detection In Practice

Stephanie Tortorelli, MPA

Manager, Regional Public Health & Safety
Learning, Teaching & Family Support (LTFS)
Puget Sound Educational Service District

Statewide Regional COVID-19 Response Coordination

Pandemic Response & Recovery



As an AESD Network, we:

- Distributed 5.4 million tests, est. value of \$34 million
- Supported 737 school districts as part of Learn to Return (public/tribal/charter schools)
- Supported Labor Support Fund activities, est. value of \$43 million
- Supported statewide vaccine clinics (COVID and childhood vaccines)

Data provided from school year 2021-2022

AESD Network: Statewide COVID Test Distribution



9 ESDs
Over 5 million tests distributed



LEARN TO RETURN

Transitions

 **LEARN TO RETURN**

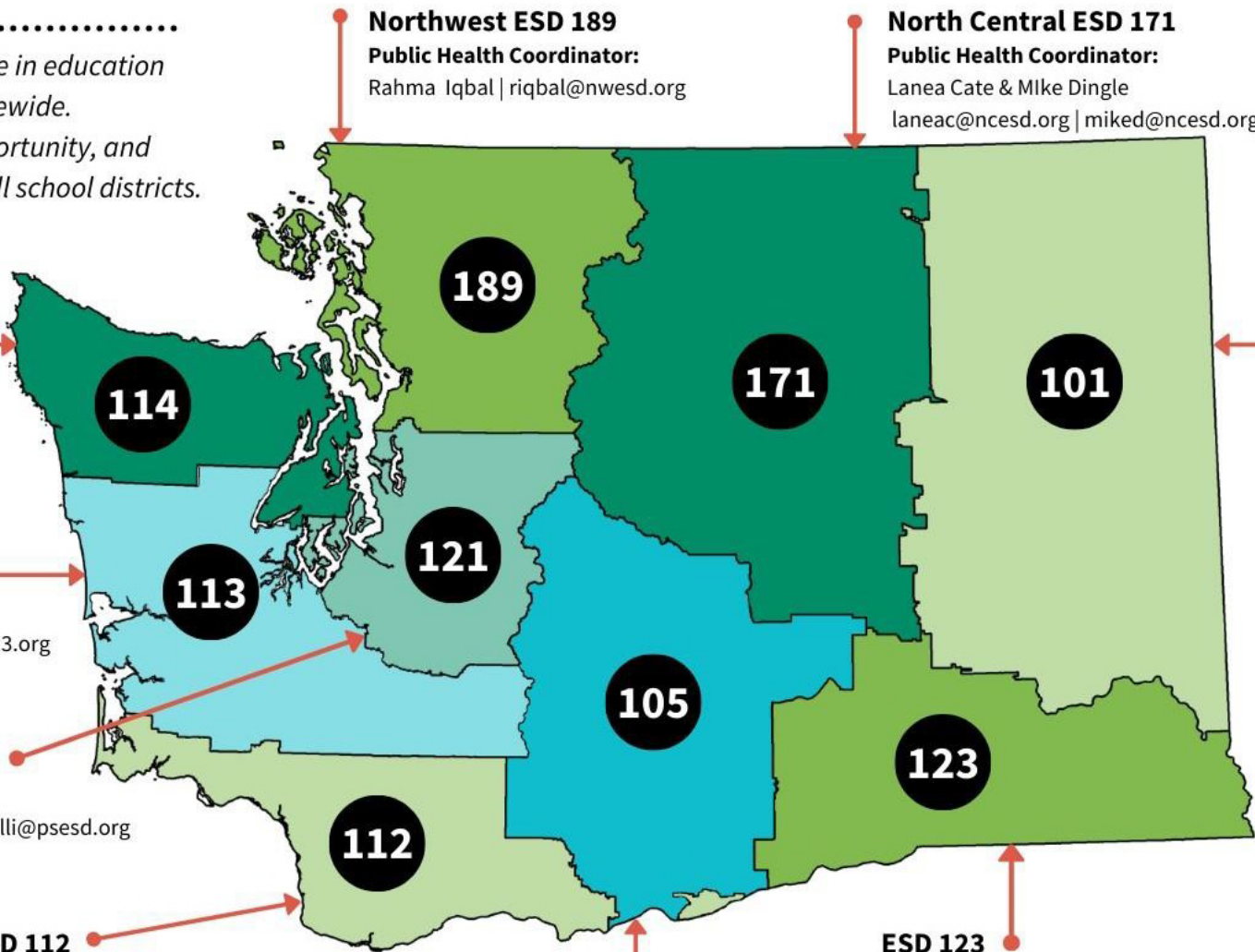


Public Health Coordinators



2023-24 Regional Public Health Coordinators

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Mission: To ensure equity and excellence in education through effective services delivered statewide.
Vision: To inspire and foster equity, opportunity, and results through meaningful support of all school districts.



Northwest ESD 189
Public Health Coordinator:
Rahma Iqbal | riqbal@nwesd.org

North Central ESD 171
Public Health Coordinator:
Lanea Cate & Mike Dingle
laneac@ncesd.org | miked@ncesd.org

NorthEast Washington ESD 101
Public Health Coordinator:
Amy Lutz | alutz@esd101.net

Olympic ESD 114
Public Health Coordinator:
Jeff Stepp | jstepp@oesd114.org

Capital Region ESD 113
Public Health Coordinator:
Amy Amegatcher | aamegatcher@esd113.org

Puget Sound ESD 121
Public Health Coordinator:
Stephanie Tortorelli | stortorelli@psesd.org

ESD 112
Public Health Coordinator:
Corina McEntire | corina.mcentire@esd112.org

ESD 105
Public Health Coordinator:
Anthony Maldonado | anthony.maldonado@esd105.org

ESD 123
Public Health Coordinator:
Angela Fry | afry@esd123.org

AESD Network Executive Director:
Jessica Vavrus | 360-259-0219 | jvavrus@waesd.org

AESD Network - ESD Public Health Coordinators

Scope of work

- All of that and.....
 - Networking and communication partners with School Nurse Corps, Regional School Safety Centers, Dept. of Health, OSPI, Local Health Jurisdictions
 - Support for comprehensive safety planning with Regional Safety Centers and School Nurse Corps on post-pandemic planning and recovery to include prevention/mitigation strategies
 - Development of regional plans for supporting school districts to integrate lessons learned from pandemic

Regional Collaboration Examples

- COVID-19 & Other Infectious Disease Mitigation
- COVID-19 Labor Support Funding
- Post Pandemic Response & Recovery
- COVID-19 & Childhood Immunization Clinics
- Regional Naloxone Distribution
- Regional Stop the Bleed Training & Resources
- Public Health Emergency Preparedness
- Indoor Air Quality (i.e., Vape Detection Programming)
- Outdoor Air Quality (i.e., Wildfire Smoke Guidance)
- Promote Health Equity
- Water Quality
- Agency Driven Public Health Initiatives

Vape Detection In Practice

Shannon Marhsall
Principal
Stadium High school

Questions for Shannon

- What prompted your school to start monitoring?
- What kind of staffing and resources do you need to make your monitoring system work well?
- How do you interact with the detectors and computer/mobile applications?
- What are next steps for your program?



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