

Olivehurst Public Utility District



Agenda Item Staff Report

Meeting Date: January 20, 2022

Item description/summary:

Community Water Fluoridation. This item was discussed in committee. OPUD previously had added fluoride to its water but after multiple complaints by residents/community, the Board made a decision to stop that practice in 2013. Yuba County Health and Human Services received a grant and part of the grant is to do training and education on water fluoridation. They would like the Board to review the attached information.

Fiscal Analysis:

None

Employee Feedback

None

Sample Motion:

Information only, no motion required at this time.

Prepared by:

Bri Anne Ritchie, Board Clerk

Community Water Fluoridation

Preventing tooth decay in communities

History

Dr. Frederick McKay notices residents of Colorado Springs had stained teeth, known as the "CO brown stain"

1901

1931

1945

Dr. McKay tested water and found 2.0 to 14.0 mg/L

H. T. Dean mapped the prevalence of enamel staining

Grand Rapids, MI becomes the first city to begin adding fluoride to their city's water

This led to a decline in tooth decay in school aged children

What is tooth decay?

- Also known as dental caries or cavities
- Caused by a breakdown of enamel by acids produced by bacteria located in plaque that collects on the teeth and around the gumline



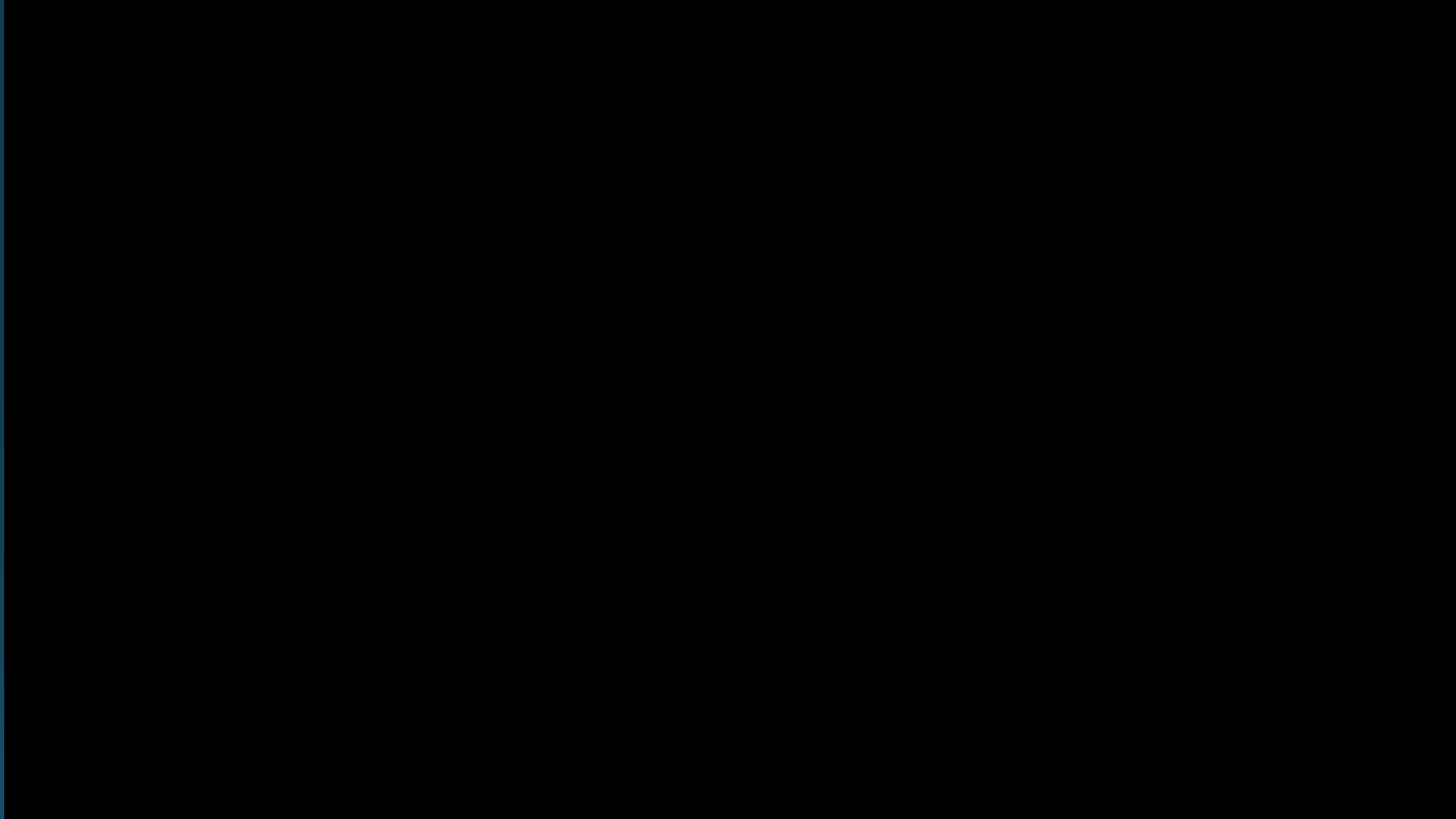
Tooth decay statistics

- The populations at the highest risk include: low socioeconomic status, lower levels of education, and those with reduced access to dental care
- 1 in 4 children living below the federal poverty line have untreated tooth decay
- Children with poor oral health tend to miss more school days and get lower grades

Types of Fluoride

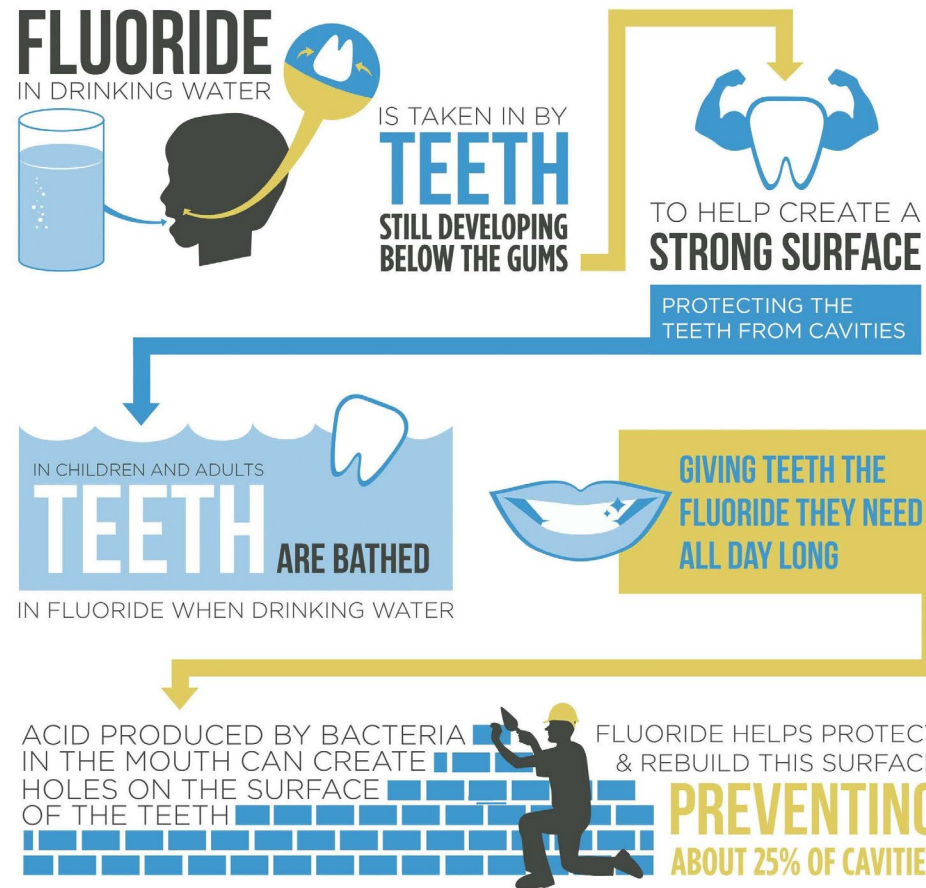
- Topical
 - Toothpaste, mouthwash, and fluoridated water
 - Strengthens the teeth by contact
 - Increases resistance to decay
- Systemic
 - Fluoride that is swallowed
 - Affects the structure of teeth as they form in childhood
 - Does not affect fully formed teeth
 - Examples include fluoride supplements and fluoridated water

How does fluoride work?



Fluoride

HOW FLUORIDE WORKS



Build a better foundation for healthy teeth and keep your teeth stronger, longer. Fluoride in water. 70 years and going strong. At a faucet near you. Visit www.CDC.gov/Fluoridation for more information.



Fluorosis

- Visible changes in tooth enamel
- Mainly caused by an excess of systemic fluoride in children



Community Water Fluoridation

- Helps reduce tooth decay and improve oral health across the lifespan
- Healthy
- Supported by scientific evidence
- Cost effective
- Healthy people 2030 wants to increase CWF to 77.1% by the year 2030

Economics

- CWF lowers cost in the long run, due to less money being spent on fillings, restoration, and loss of productivity from employees for dental repairs
- The CDC estimates that every \$1 spent on CWF saves \$20 in dental treatment costs
- The cost to fluoridate water for one person throughout their lifetime can cost less than a filling for one tooth
- CWF is the most cost effective way to deliver fluoride to community members of all ages, incomes, and education levels

Community Impact

- Halo effect allows other communities to benefit from CWF
- Over 75 years of research have shown that CWF is safe and effective
- CWF is the most practical, effective, and equitable measure that a community can take to prevent tooth decay and improve the oral health of its residents

Thank you



COMMON QUESTIONS ABOUT FLUORIDE

A Resource for Parents and Caregivers



1. Why do children need fluoride?

Our mouths contain bacteria that combine with sugars in the foods we eat and the beverages we drink. This produces an acid that harms our teeth. Fluoride strengthens kids' teeth by fighting off this acid and even reversing early signs of tooth decay.



2. Is fluoridated water safe for me and my children to drink?

Yes. Decades of research, experience, and the support of the world's leading health, dental, and medical organizations have confirmed the safety of fluoride.



3. We brush our teeth with fluoride toothpaste every day. Do we still need fluoridated water?

Yes. Drinking fluoridated water throughout the day, combined with the more concentrated fluoride in dental products prevents more tooth decay than toothpaste alone.



4. Are there health risks associated with these forms of fluoride?

No. There is no credible scientific evidence that fluoridated water or dental products cause illness or disease.



5. What exactly is dental fluorosis? Should I be concerned about fluorosis from drinking fluoridated water?

Dental fluorosis is a slight change in the look of the teeth, usually in the form of very faint white markings. Most fluorosis is the result of consuming too much fluoride while permanent teeth are forming, before the age of 8. It does not affect the function or health of the teeth. In fact, teeth with mild fluorosis are more resistant to cavities.