INTRODUCTION

In 2018 Robert Wood Johnson Foundation ranked Marin County as Healthiest County in California for 8th time. Nonetheless, Research has shown that stark disparities exist among children in Marin County in the area of Oral Health because of poverty and lack of affordable Oral Health Access and, Prevention Education and Treatment. As a result of Proposition 56 funding and leadership from the California Department of Public Health (CDPH)'s Office of Oral Health, a Statewide focus to improve the oral health of all Californians through prevention, education and organized community efforts is underway.

Throughout the process, intentional effort is placed on elevating and integrating Oral Health into total Wellness and Health Maintenance for all ages from prenatal to geriatric citizens. In order to achieve this goal, partnerships are sought in all areas including dental and primary care providers, fee/reimbursement structures for providers, general education and a focus on working in schools which are CRITICAL PARTNERS.

NEED: IMPACT ON STUDENTS

Where there are known disparities, students experience[1]

- Absentee days
- & lower academic performance
- Impaired language development
- Inability to concentrate in school
- Reduced self -esteem
- Possible facial cellulitis
- Possible systemic illness especially with special needs children
- Diminished nutrition, development and overall wellbeing. [2]

Oral Health Facts:

- Although dental carries are largely preventable, they remain the most common chronic disease of children aged 6 to 11 years and adolescents aged 12 to 19 years. Tooth Decay is four times more common than asthma among adolescents aged 14 to 17 years[3]
- The 2018 report of Kindergarten Oral Health Assessment (KOHA) in Marin County revealed a decrease in the number of kindergarteners providing proof of assessment. This report also revealed a correlating spike in untreated decay among some kindergarteners, indicating that kindergarteners not receiving dental assessments suffering worse oral health outcomes.[4]
- Department of Health and Human Services states that dental disease and illnesses are responsible for children missing approximately 50 million hours of school yearly, with low income children missing 12 times more school days than higher income children.[5]
    - We found significant associations across all the evaluated academic outcomes and oral health measures. Children with oral health problems were more likely to have problems at school (OR 1.56, 95% CI 1.32-1.85), miss at least 1 school day (OR 1.54, 95% CI 1.28-1.85), and miss more than 3 or 6 school days (OR 1.39, 95% CI 1.20-1.61 and OR 1.39, 95% CI 1.14-1.69; respectively). These associations were generally larger when using the child's oral health rating. Poor oral health was consistently related to worse academic performance across age, sex, household income, and health insurance type subgroups.

[1] Children's Oral Health and Academic Performance: Evidence of a Persisting Relationship Over the Last Decade in the United States
[2] Sacramento County Oral Health Needs Assessment 2018. https://dhs.saccounty.net/PUB/Documents/Dental-Health-Program/RT-SacCountyOHNeedsAssessment2018.pdf
[3] CDC at https://www.cdc.gov/healthywater/hygiene/disease/dental_caries.html
[4] 2018 KOHA compiled by Danika Ng, Marin HHS, Oral Health Program
[5] The Journal of Pediatrics, Volume 209, June 2019, Pages 183-189.e2 Carol Cristina Guarnizo-Herreño DDS, PhD[12]WeiLyuMS[3]George L.WehbyPhD[34] https://doi.org/10.1016/j.jpeds.2019.01.045

- Conclusions: Children's oral health status continues to be linked to their academic outcomes. This evidence highlights the need for broad population-based policies and integrated approaches to reduce academic deficits and promote children's health and development, of which oral health is an important component."

BEST PRACTICES

Best practices for improving oral health in children include four initiatives:

- Assessing oral health needs of students and linking to care.
- Providing oral health education in schools to both students and parents.
- Providing direct preventive care and early intervention including on school campuses. [6]
- Including parents where possible in organization and delivery of on campus care.
- Linking school campuses to restorative care resources in community.

ACTION: PROPOSED ACTION STEPS WITH EDUCATION PARTNERSHIP FOCUS

1. **Kindergarten Oral Health Assessment -** Strong advocacy and leadership by the Superintendent of Schools for completion of AB1433 leading to increased school based Oral Health Referrals and Treatment.
    - KOHA AB 1433 (Annual examination of unmet oral health needs of children entering their first year of school in California's public schools. SCHOR report 2019 see attachment A).
    - District by district reporting results show discrepancy between eligible students and actual numbers.
    - District with largest discrepancy underscores the linkage between disparities in income and oral Health. (Attachment B).
    - Low reporting rates influenced by high student to school nurse ratio.
        - expanded ability to follow up and refer is an important remedy for increased dental health
        - explore assistance in this area with HHS
        - reimbursement funds have been assigned to the general fund
    - Access expansion for specialist care in Marin's low-income communities with improved tracking and follow through with referrals.
2. **Advocacy and Leadership for School Based Dental Screening, Prevention and/or Treatment**
    - Cooperative partnership between Marin Community Clinic Dental Clinics, Health and Human Services and targeted schools to offer sealants and fluoride varnish in the school setting.
        - Preventive sealants for Marin children 6-14 years of age on Medi-Cal fall below sealant rates for children of the same age in California and well below the California target. The percentage of sealants for children aged 6-9 for Marin County is 8%, compared to the state 'average of 17%. For children aged 10-14 years in Marin County, 4% received sealants compared with the state average of 9%. The California target for all children 6-9 years of age is 33% (figure 4-M). p.31
        - Use of personnel and dental van affiliated with the Marin Community Clinic Dental clinics.
3. **Delivery of Oral Health Education communitywide with focus on integrating into health curriculum**
    - Focus Group in Marin County Oral Health Needs Assessment report 2018. [7] Many Spanish speaking parents of children 0-5 years said the best way for the Latino Community to receive information on oral health practices is through the schools, specifically the teachers. In addition, they suggested hosting workshops with accessible data visualizations showing the impact of tooth decay and gum disease and how to maintain good oral health. (P.14 Marin Oral Health Assessment Report.)
    - Engage communities, in a way that builds their knowledge or oral health and trusting relationships with providers would improve prevention. (Marin County Oral Health Needs Assessment report 2018, p. 17.)
    - Selection of curriculum that includes dental health.

[6] CDC, Evidenced Based Preventive Interventions https://www.cdc.gov/oralhealth/state_programs/preventive-interventions/school.htm
[7] Marin County Oral Health Needs Assessment 2018. http://marinoralhealth.org/wp-content/uploads/2018/12/Marin-Oral-Health-Needs-Assessment-Dec-2018.pdf

- Use of supplementary curricula and materials provided by the State Department of Public Health.

CONCLUSION

"The biggest challenge is motivation and education - getting people to value what your teeth do for you. Often people wait until it is a problem and then it too late. Motivation is important. One- to One attention is important. We try to get into the community to build trust" Marin County Oral Health Needs Assessment 2018 p. 17.