



Into the Future: Addressing Interprofessional Education and Oral Health Equity

Introduction

The UCLA Center for Children's Oral Health ([UCCOH](#)) is a multidisciplinary initiative utilizing evidence-based research translated to clinical care in order to achieve policy developments and advocacy for improving children's oral health in Los Angeles, California, the United States, and the world.

The goal of UCCOH is triple-fold:

1. Research: To identify best practices and evidence-based research translated to enhanced patient care.
2. Training: To advance collaboration, education, and service through the utilization of innovative interprofessional training curricula and a systems-change approach.
3. Policy & Advocacy: To improve children's oral health locally and globally through leadership of policy and advocacy development efforts, targeting medical-dental integration.



Figure 1. Triple aim of UCCOH.

Oral health is an essential part of staying healthy. Good oral health allows a child to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions. Poor oral health has serious consequences, including painful, disabling, and costly oral diseases. Early Childhood Caries (ECC) is the most chronic disease in children, **yet it is entirely preventable**. Health equity is the attainment of the highest level of health for all people and in accordance with that the four overarching goals of the Healthy People 2020 are to:

1. Attain high-quality, longer lives free of **preventable disease**, disability, injury, and premature death.
2. **Achieve health equity**, eliminate disparities, and improve the health of all groups.
3. Create **social and physical environments** that promote good health for all.
4. Promote **quality of life**, healthy development, and healthy behaviors across all life stages.¹

Viewing optimal oral health and access to effective and affordable oral health care as a right rather than a privilege results in systemic changes that lead to social justice and contributes to health equity. Through the delivery of preventive oral health education, identification of best practices and evidence-based research, utilization of innovative training curricula, and leadership of policy and advocacy development efforts, UCCOH aims to create a paradigm shift within the landscape of pediatric dental care from reactive to proactive. The mission of UCCOH is to improve oral health for underserved children and communities through the utilization of interprofessional partnerships, expansion of preventive oral health education and care for vulnerable populations, as well as pioneering necessary quality improvement protocols and oral health policies for long-lasting system changes.

UCCOH values include:

- Oral Health as a Social Equity & Human Rights issue
- Data driven research to inform: best practices, workforce innovation, and policy development
- Interprofessional training to support disease management & prevention
- Support the paradigm shift in dentistry for individual, personalized health care (i.e., "Precision Dentistry")..

Background

Early Childhood caries is a complex multifactorial disease encompassing various social determinants of health. Focusing on oral health as an important and integral part of systemic health will have an impact on eliminating disparities and creating health equity.

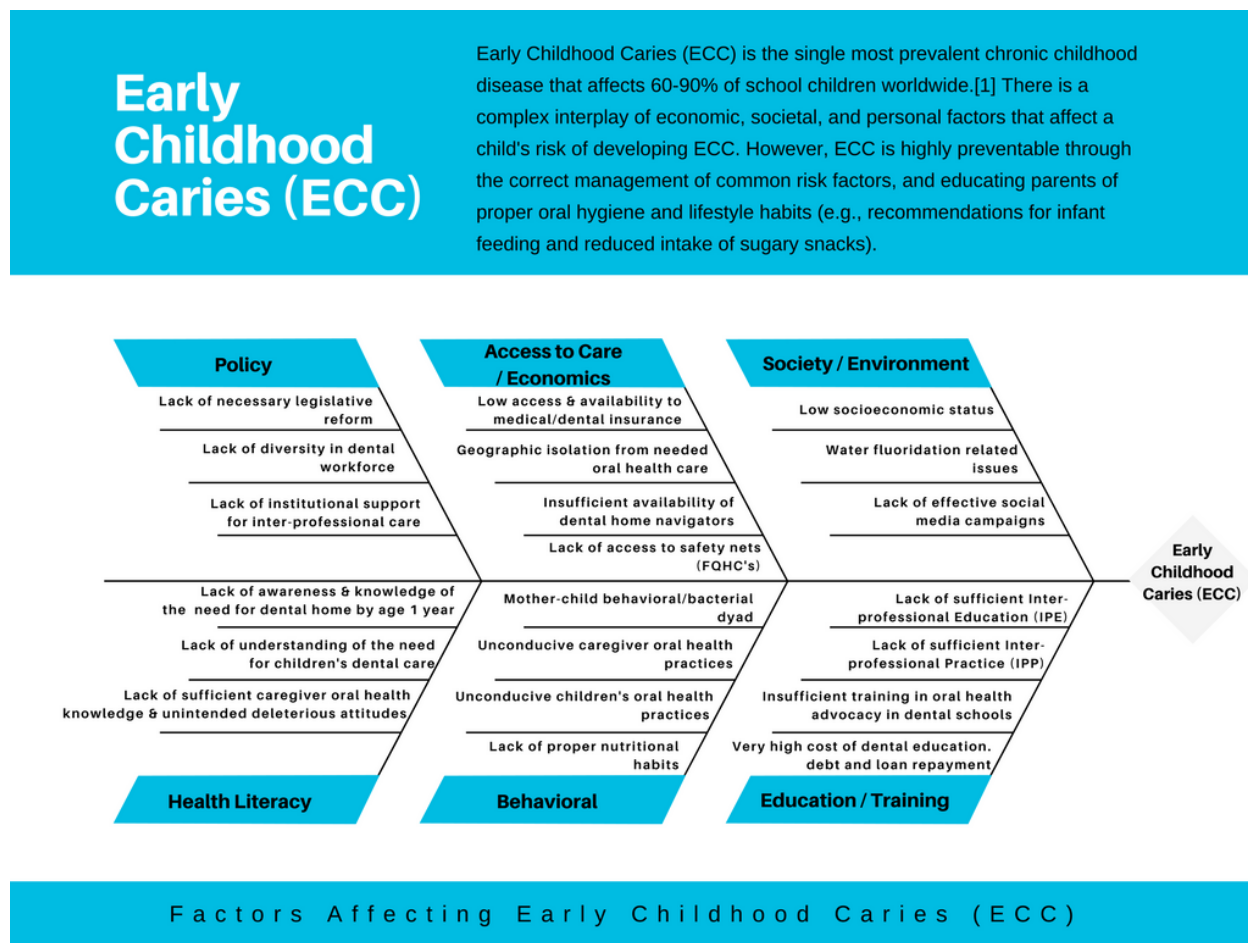


Figure 2: Factors affecting ECC

We aim to create a broad ranging ECC prevention framework that could potentially be used worldwide. This framework will provide health officials, schools, caregivers, and other stakeholders with preventative education and advocacy strategies regarding ECC and how to attenuate these high rates of ECC in children 0-6 years of age. ECC is concentrated disproportionately in children of color and from low socioeconomic families with 73% of school children having untreated caries among populations of low-income, migrant, minority families in Los Angeles.² Many emergency dental admissions become prolonged hospitalizations with significant costs. This framework will provide health officials, community organizations, schools, and healthcare professionals with the necessary knowledge and skills to provide effective preventative dental education and training to caregivers and ultimately, reduce ECC.

We aim to expand the role of existing oral health care professionals to primary care providers and services of public health. A young child will visit the pediatrician approximately 10 times by the time they reach age 3 years, and each visit is an excellent opportunity to combat the silent disease of dental caries. Both the American Academy of Pediatrics and the US Preventative Services Task Force state that

primary care providers (PCPs) should be knowledgeable on the management and prevention of dental caries.^{3,4} We aim to create a framework for interprofessional training between dental professionals and PCPs that will directly target a known deficit in oral health training and improve knowledge, confidence, and clinical performance in the prevention of childhood caries.

We also aim to create a framework to deliver oral health education to caregivers of young children within educational settings, such as at caregiver orientation sessions within Head Start and WIC and Back-to-School Night programs at public schools. To ensure attendance and delivery of our oral health educational program, the orientation sessions will also be offered online (i.e., distance learning). We also aim to implement caregiver education within their workplace as part of work-site wellness programs. By expanding the delivery of oral health education to locations outside of the dental office, we aim to increase awareness of ECC, the impact of poor oral health on overall health, and the importance of the establishment of a dental home by age 1 year. Specifically, we aim to target high priority, underserved areas, as ECC is concentrated disproportionately in those communities. and using outreach and education to those families to close the dental care awareness gap.

Additionally, we aim to advocate for existing policies, create and introduce new oral health promoting policies that will for example allow for better reimbursement rates for preventive care and education, such as fluoride varnish applications, anticipatory guidance, motivational interviewing, and patient education to improve patient outcomes. By encouraging and incentivizing dental professionals to maintain patients consistently for preventive care and recall visits, it is our hope that these services will be utilized more frequently and effectively.

The U.S. Chamber of Commerce and Partnership for Prevention have developed a guide through the Leading by Example CEO Roundtable initiative, which shares the experience and knowledge of CEOs who have incorporated new, successful approaches to employee health and productivity. Many of the worksite wellness programs mentioned within this initiative, such as Safeway Inc., Intel Corporation, and Wal-Mart Stores, Inc., include strong preventive care programs with incentives for tobacco cessation, weight loss, stress reduction, and positive healthy behaviors.⁵ However, minimal education and focus is provided for oral health. We aim to introduce legislation and bills to expand the scope of worksite wellness programs to provide more comprehensive care by including oral health education and the importance of preventive oral health services for employees and their families.

In summary, UCCOH Strategic Priorities include:

1. Data driven research to support clinical and non-clinical strategies to address ECC.
2. Interprofessional collaboration to expand access
3. Community-based oral health services in partnership with local agencies
4. Children's oral health economic forecast of benefits to inform on trends impacting dental providers
5. Policy development to support evidence-based



Figure 3: Steps to Improve Children's Oral Health

protocols & systems of care

6. Workforce Innovations that support community-based care models (i.e create a network of Community Oral Health Workers).

Proposal

The Oral Health Innovation Lab will take a multidimensional and multidisciplinary approach towards ameliorating oral disease in children and the lasting consequences on the child's quality of life, as well as towards achieving oral health equity, and mitigating oral health disparities. By spearheading new and necessary partnerships, our Oral Health Innovation Lab will collaboratively approach this ever-present problem through data driven research to support clinical and non-clinical strategies to address ECC, an integrated oral health curriculum for PCPs, and through workforce innovation efforts.



Figure 4: Oral Health as a Social Justice Issue

1. Establish an advisory network that will help move forward UCCOH's strategic initiatives. We will also foster new and necessary partnerships within the community (i.e., Head Start, WIC, other community agencies) and with other UCLA departments (Schools of Medicine, Nursing, Public Health and Public Affairs). We will create a network map and a community advisory board with members of the most relevant community agencies that represent the most underserved communities. All our partners will collaboratively help us move the strategic priorities of our Oral Health Innovation Lab forward.
 - a. Build interprofessional committees to collaborate, learn, and devise new strategies that will be comprehensive and have a wide-reaching impact.
 - b. Conduct interprofessional committee meetings to develop novel systems and approaches to increase quality of care and access to services.
2. Analyze the key factors including the prominent social determinants of oral health in the development of oral disease and build a targeted plan addressing each factor.
3. Conduct a Los Angeles County needs assessment using latest GIS technology that includes identification of current resources in the communities. This will allow us to map community needs with available resources in order to create effective interventions to enhance current prevention identification and early treatment of ECC.
4. Develop a long term (10-year) roadmap to improve child oral health in America. The road-mapping and strategy pathway development provides the field with a visual depiction and common framework to guide, monitor, and evaluate improvement and progress.
 - a. Develop short-term and long-term annual goals and measurable objectives to ensure improvement of children's oral health at both local and national levels.
 - b. Establish baselines and create measurable metrics part of a comprehensive evaluation framework to analyze the success of outcomes.
5. Conduct design labs sessions focused on designing services and systems to better meet the needs of children and their families. Using person-centered design and ecology modeling, we

will better understand the needs of children and families and ways of creating more coherent and functional service pathways and systems connections that support optimal oral health development

- a. Create opportunities for advisory network member organizations to test specific strategies and learn together to assess identified goals and objectives.
 - b. Hold a two-day Interprofessional Symposium (October 5th & 6th, 2018) to kick off this initiative: "Into the Future: Addressing Interprofessional Education and Oral Health Equity".
6. Explore current, analyze and create new prevention oriented oral health policies that focus on quality of care, innovative payment systems, and improving existing services and systems.

We will be further exploring the following 5 tracks within our two-day Symposium, "Into the Future: Addressing Interprofessional Education and Oral Health Equity":

- 1. Financial issues regarding ECC prevention:**
 - a. To include data and research on CHIP
 - b. Value-based/risk-based insurance reimbursement, Quality Improvement Outcomes, etc.
- 2. Policy developments with a focus on ECC prevention:**
 - a. Water fluoridation
 - b. Soda tax bills
 - c. Matters of social justice and health equity
 - i. Immigrant oral health issues
 - ii. Global pediatric oral health issues
 - d. Others...
- 3. Diversity issues in the dental workforce:**
 - a. To include issues related to high cost of obtaining US licensure for foreign trained dentists, etc.
 - b. Changes in dental practice
 - i. Use of Dental Therapists and Community Oral Health Workers (COHWs)
- 4. Access to care issues and barriers to care:**
 - a. Immigrant oral health issues
 - b. Interprofessional education, universal IPE curriculum development, ...
- 5. What providers need to know for patient care in the future with emerging technology:**
 - a. Technology and Teledentistry
 - b. Robotics
 - c. Laser use
 - d. Precision Dentistry
 - e. Apps providing Oral Health
 - f. New dental materials resembling natural tooth structure
 - i. Use of stem cells

For a list of oral health policy opportunities see Figure 3 below

Issue	Potential Policy Solution
Lack of Access to Care	<ul style="list-style-type: none"> • Universal Health Care (Including Dental Care) • Legislation: Address Denti-Cal Limitations
Insurance Coverage	<ul style="list-style-type: none"> • Better reimbursement rates for quality care/preventive care and education, bonuses for healthy patients
Lack of parental education of proper oral health practices & preventive measures	<ul style="list-style-type: none"> • Parent education: at schools (at orientation) & in the workplace (work-site wellness). Expanding dental care to more health facilities (e.g., Kaiser)
Lack of secure housing & consequent difficulty completing basic hygiene needs	<ul style="list-style-type: none"> • Housing policies: raising awareness and advocacy across professions
Lack of access to healthy foods	<ul style="list-style-type: none"> • More supermarkets in the community: fresh, quality produce at affordable prices
A sense of survival versus receiving preventive care	<ul style="list-style-type: none"> • Education in the classroom
Disconnect of oral health care from medical health care	<ul style="list-style-type: none"> • Inter-professional training, collaboration between professions, Community Oral Health Workers. Increasing amount of integrated care agencies
High loan repayment for dentists	<ul style="list-style-type: none"> • Cheaper education and greater loan forgiveness for dentists serving underserved communities
Lack of reimbursements, resources, & time for provider to provide education	<ul style="list-style-type: none"> • Soda & Sugar-Sweetened Beverages Tax: funds funnel to education, prevention, programming, and reimbursements
Cost to work with marginalized populations	<ul style="list-style-type: none"> • Prop 56: Implement use of funds from Tobacco Tax
Ethical dilemmas among dentists in corporate clinics	<ul style="list-style-type: none"> • More community involvement - MOUs • Re-evaluating high cost of dentistry programs and instruments
Insufficient amount of culturally competent providers	<ul style="list-style-type: none"> • Cultural competency required in dental curriculum • Recruitment and resources to increase dentist diversity
Lack of political will	<ul style="list-style-type: none"> • Legislative visits: the power of storytelling
Lack of framework surrounding oral health equity	<ul style="list-style-type: none"> • Oral health education and motivational interviewing within dentistry and pediatric training programs
Student Debt	<ul style="list-style-type: none"> • Financial Burden

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