



Understanding oral health disparities in the context of social justice, health equity, and children's human rights

Francisco Ramos-Gomez, DDS, MSc, MPH

Early childhood caries (ECC) is a chronic infectious multifactorial disease in children 6 years or younger, and it affects 600 million children worldwide but is entirely preventable.¹ When left untreated, ECC can lead to pain and infection as well as to difficulty eating, speaking, and learning. These difficulties can have detrimental and long ranging effects on cognitive and growth development, school readiness, and self-esteem, and lead to a diminished quality of life.^{1,2}

A systematic review of 72 studies worldwide showed the prevalence of ECC in children 4 years of age ranged from 12% through 98%.¹ In the United States, 23% of children aged 2 through 5 years have ECC, and 80% percent of dental disease (including ECC) is concentrated in just 20 through 25% of the country's children who are primarily from low socioeconomic backgrounds, minority backgrounds, or both.³⁻⁵ Oral health inequalities are prevalent and universal.⁶ Low-income and minority children in the United States and in many other countries have been shown to have the highest caries rates, and children from disadvantaged backgrounds are disproportionately more likely to have no access to oral health care and be admitted to the emergency department or the hospital to

have teeth extracted in order to take care of oral infections.⁷ Numerous attempts to reduce the epidemic of ECC have been made for decades with mixed success, perhaps because the strategies have focused on providers and not on taking into consideration the social determinants of health of families and their behavioral issues.

In October 2018, the University of California Los Angeles Center for Children's Oral Health (<http://www.uccoh.org/>) hosted a 2-day interprofessional innovation forum with medicine, nursing, and public health and

public policy experts to propose, discuss, and recommend cost-effective viable solutions for oral health issues focused on ECC through a lens of social justice, health equity and human rights.

Social justice refers to "the fair and proper administration of laws conforming to the natural law that all persons, irrespective of ethnic origin, gender, possessions, race, religion ... are to be treated equally and without prejudice."⁸

Health equity is considered "the attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally, focusing on societal efforts to address avoidable inequalities, recognizing and rectifying historical injustices, addressing contemporary injustices, eliminating health and healthcare disparities, and assuring structural and personal conditions are in place to support optimal health."⁹

Human rights are "rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status."¹⁰

The main goal of the forum was to develop practical, innovative interprofessional strategies and health policy suggestions for systems change approaches to improve oral health among children and underserved populations.

Forum objectives included

- positioning children's oral health as an issue of social justice, health equity and human rights. Access to basic oral health care continues to be an urgent human rights issue facing oral health professionals in both developed and developing countries¹¹;

Forum objectives included positioning children's oral health as an issue of social justice, health equity and human rights.

Editorials represent the opinions of the authors and not necessarily those of the American Dental Association.

- establishing a path to a future dental profession that focuses on dental and medical integration and a nondiscriminatory multidisciplinary approach involving evidence-based training, practice, and community involvement;
- defining training goals for students and residents on advocacy and policy curricula development for oral health.

THE PATH FORWARD: HOW ORAL HEALTH CARE PROVIDERS CAN TAKE ACTION

Findings from this forum resulted in 5 key suggestions for promoting social justice, health equity and human rights in oral health and ECC prevention for children and underserved populations.

- Encouraging oral health and medical care providers to promote and advocate for mandatory age 1 year oral health visits for all children is a crucial first step in the prevention of ECC. In addition, oral health and medical care providers should educate caregivers about the importance of parental engagement and health promoting behavioral change in preventive care starting prenatally and at infancy.² Oral health care providers should also focus on reducing sugary foods and drinks in infants and advocacy for soda taxation.
- Supporting a patient outcome-based reimbursement system that emphasizes early oral health prevention for children and reduces incentives for unnecessary restorative procedures and over-treatment. Oral health care providers are not incentivized to keep teeth healthy because prevention is often not adequately reimbursed. Medi-Cal's dental program in California created a Dental Transformation Initiative (DTI) demonstration project in 2016.¹² This initiative provides a monetary incentive in the form of bundle payments for preventive services for oral health care providers to perform a preventative caries risk assessment and provide nutritional counseling and self-management goals to patients.¹³ The DTI project emphasizes investment in preventive strategies, payment incentives for dentists who deliver appropriate care, continuity of care, and risk assessment.^{14,15} As a result of this forum suggestion and advocacy efforts, expansion of this demonstration project was implemented in early 2019 and granted to an additional 16 California counties including Los Angeles County. Increasing the use of DTI programs both nationally and internationally has the potential to reduce the prevalence of ECC over time.
- Establishing a collaborative partnership between oral health care providers and community oral health workers could help improve oral health outcomes and reduce socioeconomic-based disparities, culture-based disparities, or both. Community oral health workers are valuable underused resources, particularly for high-risk and vulnerable communities, and are an important link between the community and use of health care services. They can provide counseling, referrals, and follow-up appointments. Using people from the community who share the same culture and language has proven useful for increasing knowledge and skills regarding the importance of oral health, dissemination of the value of healthy baby teeth, and improving oral health and access to care.¹⁶⁻¹⁸
- Supporting interprofessional education and encouraging collaborative practice between oral health, medical, and other pediatric primary care providers will be critical for increasing access to and use of oral health care services for children in both developed and developing countries.¹⁹⁻²¹ Since infants and toddlers, on average, visit a primary care provider 10 times by the time they are 3 years old, we need more cross-trained pediatric primary care providers willing and capable of consistently conducting oral health examinations, including caries risk assessments and application of fluoride varnish.²
- The use of dental homes and teledentistry to promote patient-provider relationships that build trust, cultural competency, and continuity of care across the patient's lifetime are increasingly being used to increase access to oral health care, especially in underserved areas.¹⁵ Dental homes and teledentistry have the ability to improve the delivery of oral health care and lower its costs.²²

CONCLUSION

The take-home message from the 2-day forum was that collaborative multidisciplinary public health, oral health, medical, nursing, and other health care providers with community partners play important roles in addressing and preventing ECC. The integration of oral health into primary care using a strong interprofessional education multidisciplinary approach is the future of dentistry. Oral health care and medical providers in collaboration with community-based health care workers and governmental organizations and policy makers should do their utmost to advocate for and educate

patients and caregivers about the principals of children's oral health in a culturally and linguistically appropriate manner, as oral health literacy is an important pathway to health equity.² The forum also calls on pediatric oral health care and medical providers to create culturally competent practices and office environments and advocate for policies that advance social justice and equity and advocacy efforts by engaging leaders in their communities to help reduce oral health disparities. It is my hope that the suggestions in this commentary will provide a platform for further discussion about strong oral health policies with the best outcomes for the return on investment and meaningful actions to overcome oral health inequalities and bring justice and human rights for children worldwide. ■

<https://doi.org/10.1016/j.adaj.2019.09.004>

Copyright © 2019 American Dental Association. All rights reserved.

Dr. Ramos-Gomez is a professor, pediatric dentistry, School of Dentistry, University of California Los Angeles, Los Angeles, CA. Address correspondence to Dr Ramos-Gomez, 10833 Le Conte Ave., Box 951668, CHS Room 23-020B, Los Angeles, CA 90095, e-mail frg@dentistry.ucla.edu.

Disclosure. Dr. Ramos-Gomez did not report any disclosures.

1. Tinanoff N, Baez RJ, Diaz-Guillory C, et al. Early childhood caries epidemiology, aetiology, risk assessment, societal burden, management, education, and policy: global perspective. *Int J Paediatr Dent*. 2019;29(3):238-248.
2. World Dental Federation. FDI policy statement on perinatal and infant oral health. *Int Dent J*. 2014;64(6):287-288.
3. Fleming E, Afful J. Prevalence of total and untreated dental caries among youth: United States, 2015-2016. *NCHS Data Brief*. 2018;(307):1-8.
4. Cooper D, Kim JS, Duderstadt K, Stewart R, Lin B, Alkon A. Interprofessional oral health education improves knowledge, confidence, and practice for pediatric healthcare providers. *Front Public Health*. 2017;5(209).
5. Dye BA, Thornton-Evans G, Li X, Iafolla TJ. Dental caries and sealant prevalence in children and adolescents in the United States, 2011-2012. Hyattsville, MD: National Center for Health Statistics; 2015.
6. Costa SM, Martins CC, Bonfim MdLC, et al. A systematic review of socioeconomic indicators and dental caries in adults. *Int J Environ Res Public Health*. 2012;9(10):3540-3574.
7. Jackson SL, Vann WF Jr, Kotch JB, Pahel BT, Lee JY. Impact of poor oral health on children's school attendance and performance. *Am J Public Health*. 2011;101(10):1900-1906.
8. Dolan-Reilly G. The definition of social justice. Available at: <http://www.socialjusticesolutions.org/2013/01/15/the-definition-of-social-justice/>. Accessed August 13, 2019.
9. DentaQuest Foundation. How to apply a health equity and social justice lens: accountability guidance for the oral health 2020 network. Available at: https://www.heartlandalliance.org/oralhealth/wp-content/uploads/sites/19/2016/07/HealthEquityGuidance_rev2.original.1477530689.pdf. Accessed August 13, 2019.
10. United Nations. Human rights. Available at: <https://www.un.org/en/sections/issues-depth/human-rights/>. Accessed August 13, 2019.
11. Naidoo S. Ethical considerations in community oral health. *J Dent Educ*. 2015;79(suppl 5):S38-S44.
12. Department of Health Care Services. Dental Transformation Initiative. Available at: <https://www.dhcs.ca.gov/provgovpart/Pages/DTI.aspx>. Accessed August 13, 2019.
13. Ramos-Gomez F. Into the future: pediatric CAMBRA protocols. *J Calif Dent Assoc*. 2011;39(10):723-733.
14. Crall J. More LA Smiles UCLA Dental Transformation Initiative: Goals, Components, Partners, Program Update. UCLA Oral Health Innovation Forum. Los Angeles, California; 2018.
15. Thakur Y, Lee M. San Mateo County Oral Health Strategic Plan 2017-2020. Available at: https://www.smchealth.org/sites/main/files/file-attachments/oral_health_book_web_version.pdf. Accessed August 13, 2019.
16. Douglass AB, Gonsalves W, Maier R, et al. Smiles for Life: A National Oral Health Curriculum for Family Medicine—a model for curriculum development by STFM groups. *Fam Med*. 2007;39(2):88-90.
17. Villalta J, Askaryar H, Verzemnieks I, Kinsler J, Kropenske V, Ramos-Gomez F. Developing an effective community oral health workers: "Promotoras" model for Early Head Start. Available at: <https://doi.org/10.3389/fpubh.2019.00175>. Accessed August 13, 2019.
18. Salcedo G, Ramos-Gomez F, Askaryar H, Tseng C, Kritz-Silverstein D. Effects of an educational and outreach intervention on community oral health workers. *CDA Journal*. 2018;46(7):415-421.
19. Ramos-Gomez F, Askaryar H, Garell C, Ogren J. Pioneering and interprofessional pediatric dentistry programs aimed at reducing oral health disparities. *Front Public Health*. 2017;5:207.
20. Ramos-Gomez FJ. Changing the education paradigm in pediatric dentistry. *J Calif Dent Assoc*. 2014;42(10):711-715.
21. Ramos-Gomez FJ, Silva DR, Law CS, Pizzitola RL, John B, Crall JJ. Creating a new generation of pediatric dentists: a paradigm shift in training. *J Dent Educ*. 2014;78(12):1593-1603.
22. Jampani ND, Nutalapati R, Dontula BS, Boyapati R. Applications of teledentistry: a literature review and update. *J Int Prev Community Dent*. 2011;1(2):37-44.