



American Heart Association®

Healthy Smiles, Healthy Hearts™

Integrating Oral and
Cardiovascular Health:



Insights from the Healthy Smiles, Healthy Hearts™ Summit

Published collaboratively by the American Heart
Association and Delta Dental of California



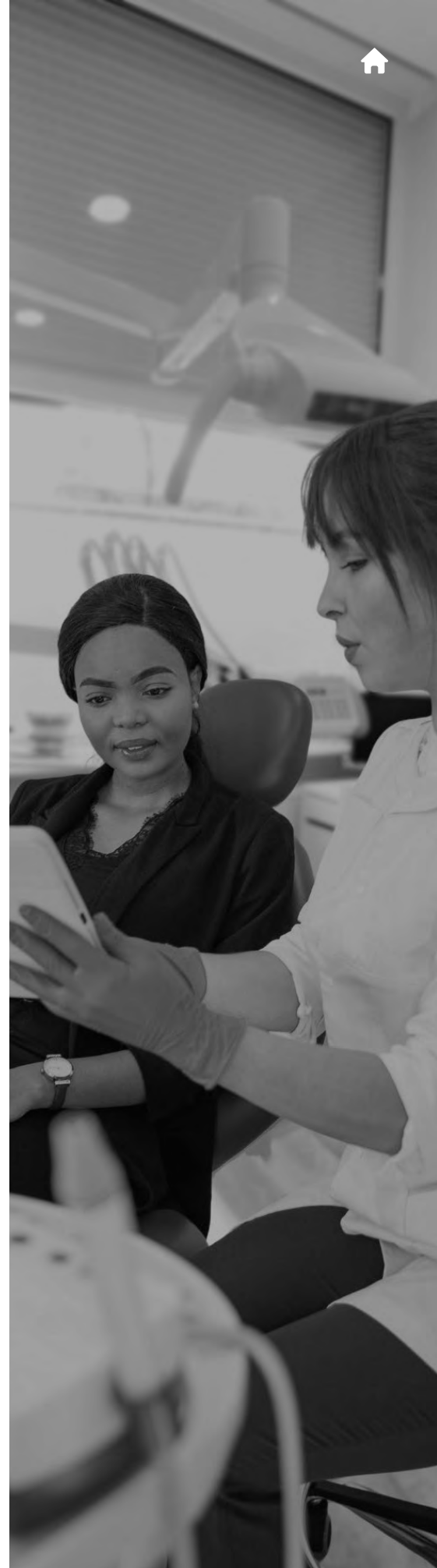
Delta Dental is proud to collaborate with the American Heart Association's
Healthy Smiles, Healthy Heart initiative.

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01

Executive Summary

With an estimated 27 million people visiting a dental professional but not a doctor each year,¹ and when cardiovascular disease stands as the leading cause of death² while oral disease remains a silent epidemic,³ we have a unique opportunity to bridge care gaps by focusing on overall health and saving lives. This shift comes at a critical moment: Between 2017 and 2020, almost half of US adults had some form of cardiovascular disease⁴ and almost half of the world's population suffered from oral diseases.⁵ The American Heart Association's Healthy Smiles, Healthy Hearts™ Initiative, in collaboration with Delta Dental, is dedicated to bridging the gap between oral and overall health care. This Initiative aims to advance accessible, integrated care by:

- Equipping dental and primary health care teams with the tools and resources they need for prevention, early detection, and better patient care coordination.
- Educating patients and the public on better understanding the connection between oral health and cardiovascular health, and the steps they can take to protect both.

At a Glance: Why Screening in Dental Settings Matters



122.4M U.S. adults, nearly half the U.S. population, have high blood pressure.⁸



56.3% of those diagnosed have uncontrolled hypertension.⁸



57.8M people with uncontrolled blood pressure are unaware of it.⁸



27M patients visit a dental professional but not a doctor each year.¹



42% of adults age 30+ have gum disease.⁹



\$42M–\$102M/year could be saved by adding medical screenings in dental settings, up to \$33 per patient screened and referred.¹



To build momentum in exploring the integration of care between oral and cardiovascular health, the American Heart Association, in collaboration with Delta Dental, hosted the Healthy Smiles, Healthy Hearts summit on March 11, 2025. This event showcased compelling science linking oral health conditions like periodontitis to systemic inflammation⁶ which contributes to cardiovascular disease.⁷ The summit also highlighted insights from a national market research survey conducted by the American Heart Association, in collaboration with The Olinger Group and The Harris Poll, on the feasibility of blood pressure screenings in dental settings—and the need for standardized protocols, interoperable systems, and reimbursement to unlock the potential of integrated care—recognizing dental professionals as frontline partners in screening and early identification of cardiovascular risk. Armed with compelling science and the right tools, summit participants, from payers and health systems to dental associations and technology innovators, departed energized and eager to pursue new opportunities to champion integrated care and strengthen the connection between oral health and cardiovascular well-being.

This white paper captures the key learnings from the 2025 Healthy Smiles, Healthy Hearts summit and introduces the tools, resources, and protocols developed by the American Heart Association's Healthy Smiles, Healthy Hearts Initiative, in collaboration with Delta Dental of California, to address the identified needs. By putting these recommendations into action, professionals and leaders like you can take the first steps towards integrating oral and cardiovascular health care—fostering more holistic care delivery and better patient outcomes.

Imagine a world where every dental visit includes blood pressure screening and integrated referrals, and where integrated care models transform how we close gaps to health care access. Join the movement to redefine health care and make integrated care the new standard—because every small step toward whole-person health matters.

2025 Healthy Smiles, Healthy Hearts summit highlights:



Increasing scientific evidence and research show a connection between oral and cardiovascular health.



Dental professionals are poised to be partners in primary care when provided with the appropriate education, protocols, and resources.



Dental professionals are enthusiastic about opportunities for increased collaboration with primary care professionals. Systemic challenges, such as time constraints, inadequate integrated communication infrastructure, referral pathways, and reimbursement incentives, hinder effective partnerships between dental and primary care professionals.



Summit attendees recognized the importance of involving more primary care professionals in conversations with dental teams to build mutual understanding and improve referrals between dental and primary care settings. The American Heart Association, in collaboration with Delta Dental, aims to address some of the challenges in integrated care by providing tools, training, and educational resources.



02

Why This Matters Now



The Connection

The summit opened with a warm welcome from American Heart Association and Delta Dental of California leadership. Eduardo Sanchez, CMO for Prevention for the American Heart Association, and Sarah Chavarria, CEO and President of Delta Dental of California, greeted attendees from over 20 different organizations across cardiovascular care, dentistry, health policy, health tech, and more. They shared:



Our mouths and our hearts are two critical components that make us who we are. Today is just the start of kicking off this integration where we all want to advance health and hope for everyone, everywhere.



Eduardo Sanchez, CMO for Prevention for the American Heart Association



We jumped at the opportunity for this collaboration. Our purpose is to expand access to quality care for all.



Sarah Chavarria, CEO and President of Delta Dental of California, echoed this sentiment





Souvik Sen, MD, MPH

University of South Carolina

After these introductions, scientists involved in researching the connection between oral and cardiovascular health presented their findings. **Souvik Sen, MD, MPH**, shared research supporting the connection between oral health and cardiovascular disease, with periodontitis contributing to systemic inflammation⁶—a contributing factor for cardiovascular disease, stroke, and vascular health.^{7,10,11}



Jessica Mark Welch, PhD

Forsyth Institute

Next, **Jessica Mark Welch, PhD**, detailed how the oral microbiome includes health-associated bacteria that play an important role in cardiovascular health by helping to regulate blood pressure control.¹²

Together, the research increasingly demonstrates a connection between oral and cardiovascular health. With this growing body of evidence, the question becomes: how do dental professionals, health care professionals, and patients perceive the integration of these two health domains—especially blood pressure screening, patient education, and primary care referrals in the dental setting?



Deep Dive on the Science

The research below indicates that managing oral inflammation and maintaining a balanced oral microbiome can be critical components of a comprehensive cardiovascular care strategy and maintaining good oral health.

- Individuals with periodontitis can be more likely to have higher blood pressure, a leading risk factor for cardiovascular disease.¹³
- A systematic review by Wang et al. (2019) found periodontitis is associated with the risk of peripheral vascular disease, highlighting the systemic impact of oral inflammation on cardiovascular health.¹⁴ Wolf and Ley (2019) explored the role of immunity and inflammation in atherosclerosis, emphasizing how chronic immune activation and inflammation contributes to the progression of cardiovascular disease.¹¹
- Aarabi et al. (2019) suggested that chronic oral infections, including periodontitis, are associated with increased systemic inflammation and heightened risk for age-related diseases such as cardiovascular disease, stroke, and possibly dementia.¹⁵
- A science advisory from the American Heart Association by Yang et al. (2025) found that an imbalanced gut microbiome in hypertension increases blood pressure through multiple mechanisms, including disruption of the gut barrier and immune activation, and alterations in gut microbiome-derived metabolites.¹⁶
- Health-associated commensal bacteria, such as *Rothia mucilaginosa* and *Neisseria* species, play a protective role in cardiovascular health by supporting nitrate metabolism and reducing blood pressure.¹² Studies like Webb et al. (2008) suggested that dietary nitrate, metabolized by oral bacteria, can lower blood pressure, further illustrating the two-way connection between oral and overall health.¹⁷
- Oral inflammation may also reduce the effectiveness of antihypertensive medications,¹⁸ further complicating blood pressure management in individuals with poor oral health. This suggests that addressing oral health has an important place within comprehensive cardiovascular care strategy.



Mary Dunn, PhD

American Heart Association

To explore this question, **Mary Dunn, PhD**, National Senior Market Research Manager at the American Heart Association, led market research surveys in conjunction with The Olinger Group and The Harris Poll, as part of the Healthy Smiles, Healthy Hearts Initiative. The market research surveys aimed to understand the experiences, perceptions and needs of health care professionals, dental professionals, and dental patients, regarding the connection of oral health and cardiovascular health, as well as the implementation of blood pressure screenings and referrals to primary care within dental settings.

The findings revealed that these stakeholders are receptive to whole-person care and hold a foundational understanding of the connection between cardiovascular and dental health. Dental professionals expressed openness to integrating blood pressure screenings into routine dental visits, indicating readiness for more integrated care approaches. In contrast, primary care professionals need increased trust in dental professionals to help with patient health screenings beyond dental oral health screenings. However, there is a prevalent interest in professional education and training on dental health and related screenings. Overall, dental patients were receptive to receiving health screenings from their dental professionals, but they are rarely experiencing blood pressure screenings in dental settings, if at all, and not discussing results with their dental professional team.



78% of dental professionals polled in recent market research surveys believe it is at least somewhat feasible to screen for blood pressure.



80% of patients polled in recent market research surveys feel it is appropriate to have information about overall health available in dental settings.

Healthy Smiles, Healthy Hearts Market Research Methodology^{19,20}

Health Care Professional Survey Details:

- Total Sample: n=1,204.
 - Primary Care Professional Total: n=604.
 - Dental Professional Total: n=600.
- Inclusion Criteria: Primary Care or Dental Professional working in the United States; Not retired.
- Dates of Survey: October 23rd – 31st, 2024.

Dental Patient Survey Details:

- Total Sample: n=3,000.
- Inclusion Criteria: Dental Patients in the US; Have visited a dental professional in the past 12-months; 18 or older.
- Dates of survey: October 2024.



Eduardo Sanchez, CMO for Prevention for the American Heart Association, and **Sarah Chavarria**, CEO and President of Delta Dental of California opened the summit and welcomed attendees from 20 organizations.

The market research surveys highlight an opportunity to advance integrated oral and cardiovascular health care, starting by equipping dental professionals with necessary training and protocols for blood pressure screenings, while also developing targeted educational resources to support the connection between oral and cardiovascular health.

Key highlights from the market research surveys include the following:

Receptivity: The market research surveys found strong openness among dental professionals and dental patients toward whole-person care, with the potential to shift assumptions and build trust between dental professionals and patients:

- Dental professionals consider physical health a top priority, but some do not conduct blood pressure screenings because they believe patients may be resistant.
 - 78% of dental professionals said it was at least somewhat feasible to screen for blood pressure but reported a need for additional training.
 - 20% did not screen blood pressure at all, often citing scope-of-practice concerns or assumptions about patient resistance.
- Dental patients are receptive to more comprehensive care, which challenges the beliefs of dental professionals about their opposition.
 - 88% viewed their dental professional team as an important part of their overall health care.
 - 66% were interested in receiving more comprehensive services during dental visits.
 - 51% would be more likely to visit a dental professional if health screenings were offered.

Baseline Understanding: The market research surveys revealed that nearly all primary care and dental professionals have a basic knowledge about cardiovascular and dental health, as well as the connection between the two. Additionally, 62% of dental patients want their provider to do a better job explaining what blood pressure numbers mean:

- Dental professionals are interested in further training and tools, citing lack of clarity in existing guidelines and a desire to feel more confident implementing cardiovascular screenings.



Protocol and Standard Implementation:

Though dental professionals generally support blood pressure screening and referrals, operational barriers remain a major hurdle:

- Referral systems are largely informal, with only 18% of dental professionals coding referrals in patient health records.
- 57% of dental professionals note referrals in extra freeform notes in patient health records, highlighting inconsistent documentation.
- Despite 87% believing referrals were at least somewhat feasible, there is inadequate infrastructure, communication systems, and interoperable tools which would enable more effective follow-up care.

Taken together, the findings from the market research surveys indicate that dental professionals and patients are ready to adopt a more integrated care model. However, additional support will be critical to help to deliver the integrated care:

- Clarity in protocols and guidelines, validated screening tools, and training to ensure uniform implementation.
- Streamlined referral pathways, better communication infrastructure, and interoperable systems for improved integration.
- Increasing awareness among primary care professionals about the valuable role dental professionals can play in the early detection of cardiovascular risk.

Summit participants also identified payment reform as critical, advocating for value-based, supportive reimbursement models that reward prevention and early detection... check out **“What We Learned Together”** for more details!

Beyond the impact on patient care, the growing body of scientific evidence discussed at the summit carries wider implications for public health:



Strengthening Prevention Efforts

Addressing the oral-overall health connection can enhance prevention strategies, potentially reducing the prevalence of chronic conditions such as cardiovascular disease.



Cost Savings

By focusing on early detection and prevention, integrated care models can reduce long-term health care costs associated with managing advanced cardiovascular and oral health conditions. According to the CDC, **health care systems could save up to \$100 million each year if dental offices performed screenings for diabetes, high blood pressure, and high cholesterol.**²¹



Access to Care

Historically, under-resourced communities have faced barriers to accessing both dental and medical care. Integrated models offer a promising approach to delivering comprehensive health services with broader access.



03

What We Learned Together



Pictured from left to right, **Terri Chandler** - Founder and CEO at Future Smiles, and **Ashley Schendel**, Scenic Bluffs Health Center Inc., Dental Clinical Supervisor.

The Healthy Smiles, Healthy Hearts summit brought together a diverse group of stakeholders, including dental and health care professionals, researchers, policymakers, and patient advocates, to explore the integration of oral and cardiovascular health. During one of the summit sessions, **Dr. Justin Zachariah, MD, MPH, FAHA, FACC, FAAP** of the American Heart Association and **Dr. Daniel Croley, DMD** of Delta Dental of California created an open space for these stakeholders to share ideas and learnings about their ongoing efforts and the lessons they've learned so far on the connection of oral and overall health.



This is not a one-person or one-specialty job. It's a combined effort. Let's envision a future where integration is the norm and not the exception.



Justin P. Zachariah, MD, MPH, FAHA, FACC, FAAP, Associate Professor of Pediatrics-Cardiology at Baylor College of Medicine in Houston, Texas and Chair of the Healthy Smiles, Healthy Hearts Science Advisory Group



This partnership between the American Heart Association and Delta Dental is natural because we are both interested in the integration of health care with patients at the center.



Daniel Croley, DMD, Chief Dental Officer, Delta Dental of California





From the summit discussions, five themes emerged:



1. Integrated Care Models and Standardization

While innovation occurs in pockets, the siloed care model leads to missed chances for collaboration and inefficiencies. Some provider organizations talked about exploring standardized protocols for screenings, referrals, and follow-up care to facilitate coordinated care that benefits both dental and health care professionals and patients.



This needs to become a priority for all care professionals until this becomes the standard of care.



Anita Duhl Glicken, MSW National Interprofessional Initiative on Oral Health Executive Director, summit attendee



The rapid advancement and ramp up in technology offers new opportunities for diagnostics and integration.



Seth Howard EPIC Sr. VP Research and Development, summit attendee



2. Enhanced Communication and Technology

Improved communication channels and interoperable systems are crucial for sharing information and tracking patient outcomes. Technology-focused organizations shared ideas on how to leverage digital tools, telehealth, and AI-driven solutions to streamline workflows, improve data sharing, and facilitate seamless integration between dental and medical care.



How do we bill? What code should we use? Billing to codes based on our best guess is not enough. We need the right code.



Dave Preble, D.D.S., J.D, former Chief Strategy Officer, American Dental Association, summit attendee



3. Policy and Reimbursement Reform

While reimbursement and coverage barriers currently limit health screenings and referrals within dental settings, discussions highlighted significant opportunities for employers to actively support preventive wellness programs, opening new avenues to promote employee health through integrated oral and cardiovascular care.

**At the time of our discussion, Dave Preble, D.D.S., J.D was serving as Chief Strategy Officer at the American Dental Association.*



4. Education and Awareness

Educating health care professionals and patients about the oral-cardiovascular health connection is critical. Professionals in academia proposed integrating this education into medical and dental curricula and providing accessible resources to promote best practices and raise awareness of the importance of oral health in overall wellness.



We all need better education as health care professionals, dental professionals, and patients. Even if we do the tests as professionals, patients need to be educated enough to not defer care.



An Nguyen, DDS, MPH National Network for Oral Health Access, summit attendee



Integrating dental and medical underpins the future. This is an avenue for everyone to share best practices, and we need to consider how to disseminate our learnings across the community.



Mariya Filipova, 4100 Group, Inc. Managing Director, summit attendee



5. Collaborative Efforts and Overall Health Integration

There is excitement for collaboration and rich opportunity for alignment among dental and primary care professionals, patients, and stakeholder organizations. Stakeholders are exploring new paths that respect the unique strengths of each system to continue the momentum for total-health integration to improve patient outcomes and reduce health care costs.



Bianca Pressley, National Director, Program Implementation, Health Sciences, American Heart Association, shared a summary of her table's discussion, which included professionals from the medical, dental, and technology fields. From her left and moving right, **Thomas E. Van Dyke**, DDS, PhD ADA Forsyth Center for Clinical and Translational Research, Vice President of Clinical and Translational Research and **Souvik Sen**, MD, MPH - Professor and Chair of the Department of Neurology at the University of South Carolina School of Medicine and member of the Healthy Smiles Healthy Hearts Science Advisory Group, are pictured.



The summit sparked momentum, fueled by the fresh ideas and innovative thinking shared throughout the day's discussions. The energy and creativity in action was inspiring, and there is still significant opportunity for more impact—particularly in areas like education and standardizing protocols. The question then becomes: *how can we channel this energy into actionable steps that drive meaningful progress?*



The summit created an open space for stakeholders to share ideas, learnings, and ongoing efforts toward the connection of oral and overall health.

Pictured from left to right are **Mohammad Navid**, Executive Vice President, Chief Relation and Business Development Officer of Delta Dental of California, **Robert Thielen**, DDS, Dental Director of Molina Healthcare, **Seth Howard**, Senior VP, Research and Development of EPIC, **Daniel Croley**, DMD, Chief Dental Officer of Delta Dental of California, **Lynn Serdynski**, National Director, Program Development of American Heart Association



04

The Initiative



The American Heart Association, through its Healthy Smiles, Healthy Hearts Initiative, in collaboration with Delta Dental, is committed to supporting stakeholders by equipping them with practical tools and educational resources to advance the integration of oral and cardiovascular care. At this pivotal moment—when science has underscored the connection between oral and cardiovascular health, and dental professionals and patients are ready to act—this collaboration brings together two leaders in health with the aim to expand care settings, delivering equitable, integrated care, and advancing overall health and well-being for communities nationwide.

Healthy Smiles, Healthy Hearts Initiative's mission: To advance equitable, integrated care by:



Providing dental and primary health care teams the tools and resources they need for prevention, early detection, and better patient care coordination.



Helping patients and the public understand the connection between oral health and cardiovascular health and the steps they can take to protect both.

As part of the broader effort to connect oral care and cardiovascular care, the Healthy Smiles, Healthy Hearts Initiative offers a suite of tools addressing the foundational needs of professional and patient education, including standard protocol for blood pressure screening in the dental setting and referrals to primary care.



Healthy Smiles, Healthy Hearts Initiative Tools



Quality Improvement

To address the need to standardize processes for integrating oral care and cardiovascular health care, the Initiative will offer:

- Tools and resources for blood pressure screening and referrals for dental professionals.
- A standardized protocol for blood pressure screening and referrals in dental settings.
- A recognition program for oral health care teams who participate in quality blood pressure screening protocols.



Professional Education

To meet the demand for more training, education, and seamless coordination across oral health care and primary health care teams, the Initiative will offer:

- Professional education activities, with continued education accreditation, to provide dental and health care teams with information and resources on the connection of oral health and cardiovascular health.
- Information for oral health care teams on how to measure blood pressure properly and best practices to refer patients to primary care professionals with any potential concerns.



Patient Education

To engage patients as active participants in the management of their overall health, the Initiative will offer:

- Educational materials to help patients better understand the connection between oral health and cardiovascular health.
- Educational resources in dental settings, encouraging patients to take charge of their overall health and well-being.

Dental professionals, primary care professionals, patients, and other stakeholders are encouraged to be part of this effort toward whole-person health. Using the tools and resources from Healthy Smiles, Healthy Hearts, and putting recommended practices into action today, can help make integrated care a standard part of how we support patients' overall health.



05

Where You Can Go Next

Fueled by the science, enthusiasm from stakeholders across the care continuum, and the tools and resources provided by the Initiative, the path forward is clear:

We can all contribute to the vision of bringing integrated care to life.

The American Heart Association invites you to join us, whether that's implementing the provided protocol for blood pressure screening and referrals, sharing resources with colleagues and patients, or simply starting conversations. **Every small step matters.**

These ideas may spark inspiration as you consider ways to make your own meaningful contributions:



Dental Professionals

Adopt the standardized protocol for blood pressure screening and referrals, leveraging Healthy Smiles, Healthy Hearts tools to integrate oral and cardiovascular care into your practice.

What's the benefit?

- Building trust and loyalty with your patients.
- Positioning yourself as a leader in whole-person care and ultimately enhancing patient outcomes and satisfaction.
- Receiving formal recognition through the Initiative for offering whole-person care.





Health Care Professionals

Work together with dental professionals to create seamless care pathways, advocate for protocol inclusion of oral health in systemic health initiatives.

What's the benefit?

- Amplifying your preventative health efforts.
- Enhancing overall care delivery and improving patient outcomes.



What's the benefit?

- Demonstrating the value of integrated care.
- Improving system efficiency and patient satisfaction.



Health Care Systems

Mobilize resources to implement medical-dental integration models, prioritize interoperable systems, and track outcomes to advance whole-person care.



Summit attendees participated in various breakout activities and discussions to outline the path toward integrated care.

Pictured from left to right across the two photos are **Huong Le**, DDS, MA, Chief Dental Officer, Asian Health Services and member of the Healthy Smiles, Healthy Hearts Learning Collaborative, **Jennifer MacGilvray**, EVP and Chief Quality Officer, Delta Dental, **Sara Freedman**, FNP, Family Nurse Practitioner, Scenic Bluffs Community Health Centers, **Jen Koberstein**, Oral Health Program Manager, Wisconsin Oral Health Collaborative, **An Nguyen**, DDS, MPH, Chief Dental Officer at Clinica Family Health and President for the National Network for Oral Health Access.



Workplace Benefits Team

Expand preventive health coverage to include services in dental settings, such as blood pressure screenings, and design benefits that support both oral and overall health (e.g., additional dental visits during pregnancy, coverage for periodontal treatment, and integration with wellness programs). Employers can also incorporate patient education resources from the Healthy Smiles, Healthy Hearts Initiative into their employee wellness efforts to raise awareness about the connection between oral and cardiovascular health and encourage preventive care.

What's the benefit?

- Supporting a healthier, more productive workforce through early detection and prevention.
- Reducing long-term health care costs by addressing chronic conditions sooner.
- Demonstrating leadership in employee well-being with innovative, whole-person benefit design.



What's the benefit?

- Influencing the next generation of professionals to contribute to the advancement of integrated care.
- Enhancing institutional standing as trusted leaders in education and positioning programs at the forefront of evolving clinical practice.
- Preparing students with practical, team-based skills that reflect the future of clinical care.



Academia

Incorporate education on the connection between oral and cardiovascular health, along with resources from the Healthy Smiles, Healthy Hearts Initiative, into curricula. Teach practical skills, such as using proper blood pressure measurement technique in dental settings or oral exams in medical settings, and include referral protocol. Offer cross-disciplinary rotations or observations to expose students to real-world examples of collaborative care between dental and medical professionals.



What's the benefit?

- Empowering communities to improve public health.
- Driving systemic change to improve equitable health care access.



Community-Based Organizations

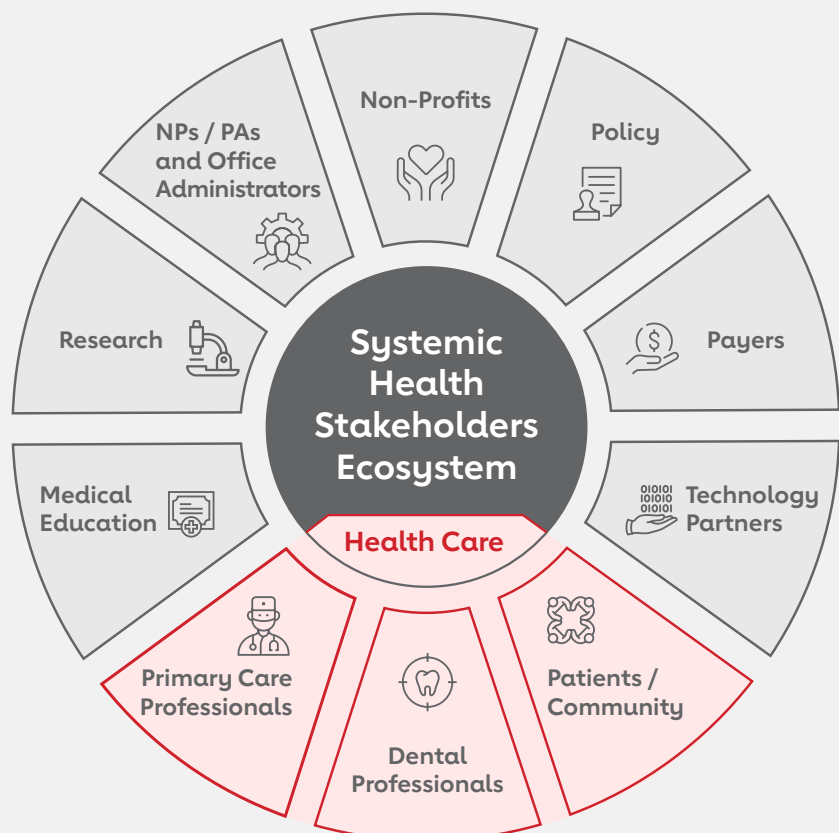
Amplify the connection of oral and cardiovascular health within communities by utilizing the patient education resources. Encourage community members to know their numbers, learn how to take their blood pressure, and talk to a doctor.

As the Healthy Smiles, Healthy Hearts Initiative moves forward, we encourage you to explore and implement the tools and resources it offers, designed to support both dental and primary care teams in advancing integrated, whole-person care.

Together, we can redefine the landscape of health care, ensuring that oral health is recognized as an essential component of overall well-being, and achieve lasting progress toward a more holistic approach to care.

In the journey to integrated care, every stakeholder in the systemic health ecosystem plays an important role

Building integrated care takes a village – everyone has a role to play. The Healthy Smiles, Healthy Hearts Initiative equips professionals and leaders with the science-based tools and knowledge needed to bring health screenings, referrals protocols, and both professional and patient education into the dental setting.





The summit closed by sharing next steps and gratitude for all stakeholders.



To learn more about Healthy Smiles, Healthy Hearts, please scan the QR code or visit:

www.heart.org/HealthySmiles



American Heart Association®

Healthy Smiles, Healthy Hearts™



Delta Dental of California is proud to collaborate with the American Heart Association's Healthy Smiles, Healthy Hearts Initiative.



The American Heart Association's Healthy Smiles Healthy Hearts initiative in collaboration with Delta Dental of California, would like to thank and acknowledge all the organizations represented at the Healthy Smiles, Healthy Hearts Summit.

- 4100 Group, Inc.
- ADA (American Dental Association)
- ADA Forsyth Institute
- American Academy of Periodontology
- American Association of Public Health Dentistry
- Association of Dental Plans
- Association of State & Territorial Dental Directors
- Care Quest
- Center for Medicare Advocacy
- EPIC
- Future Smiles
- Molina Healthcare
- National Association of Hispanic Nurses (NAHN)
- National Inter professional Initiative on Oral Health
- National Network for Oral Health Access
- PDS (Pacific Dental Services)
- Scenic Bluffs Health Center Inc.
- Society of American Indian Dentists
- Wisconsin Oral Health Collaborative



References

1. **Nasseh K, Greenberg B, Vujicic M, Glick M.** The effect of chairside chronic disease screenings by oral health professionals on health care costs. *Am J Public Health.* 2014;104(4):744–750. doi:10.2105/AJPH.2013.301644. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4025684/>
2. **World Health Organization.** Cardiovascular diseases. https://www.who.int/health-topics/cardiovascular-diseases#tab=tab_1. Accessed June 01, 2025.
3. **Benjamin RM.** Oral health: the silent epidemic. *Public Health Rep.* 2010;125(2):158–159. PMID: 20297740; PMCID: PMC2821841. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2821841/>
4. **American Heart Association.** 2024 Heart Disease and Stroke Statistics Update: At a Glance. https://www.heart.org/-/media/PHD-Files-2/Science-News/2/2024-Heart-and-Stroke-Stat-Update/2024-Statistics-At-A-Glance-final_2024.pdf. Published 2024. Accessed June 01, 2025.
5. **World Health Organization.** Almost half of the world's population suffer from oral diseases. <https://www.who.int/multi-media/details/almost-half-of-the-worlds-population-suffer-from-oral-diseases>. Published June 19, 2023. Accessed June 01, 2025.
6. **Lockhart PB, Bolger AF, Papapanou PN, et al.** Periodontal disease and atherosclerotic vascular disease: does the evidence support an independent association? A scientific statement from the American Heart Association. *Circulation.* 2012;125(20):2520–2544. doi:10.1161/CIR.0b013e31825719f3. PMID: 22514251. <https://www.ahajournals.org/doi/full/10.1161/CIR.0b013e31825719f3>
7. **American Heart Association.** Inflammation and Heart Disease. <https://www.heart.org/en/health-topics/consumer-healthcare/what-is-cardiovascular-disease/inflammation-and-heart-disease>. Accessed June 01, 2025.
8. **Martin SS, Aday AW, Almaraz ZI, et al;** on behalf of the American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. 2024 Heart disease and stroke statistics: a report of US and global data from the American Heart Association. *Circulation.* Published online January 24, 2024;149(8):e347–e913. doi: 10.1161/CIR.0000000000001209
9. **Centers for Disease Control and Prevention.** Gum Disease Facts. Oral Health. National Center for Chronic Disease Prevention and Health Promotion; May 15, 2024. <https://www.cdc.gov/oral-health/data-research/facts-stats/fast-facts-gum-disease.html>. Accessed August 05, 2025.
10. **Sen S, Redd K, Trivedi T, et al.** Periodontal disease, atrial fibrillation and stroke. *Am Heart J.* 2021;235:36–43. doi:10.1016/j.ahj.2021.01.009
11. **Wolf D, Ley K.** Immunity and inflammation in atherosclerosis. *Circ Res.* 2019;124(2):315–327. doi:10.1161/CIRCRESAHA.118.313591. PMID: 30653442; PMCID: PMC6342482
12. **Vanhatalo A, Blackwell JR, L'Heureux JE, et al.** Nitrate-responsive oral microbiome modulates nitric oxide homeostasis and blood pressure in humans. *Free Radic Biol Med.* 2018;124:21–30. doi:10.1016/j.freeradbiomed.2018.05.078



13. **Muñoz Aguilera E, Suvan J, Buti J, et al.** Association between periodontitis and blood pressure highlighted in systemically healthy individuals: results from a nested case-control study. *Hypertension*. 2021;77(5):1795–1804. doi:10.1161/HYPERTENSIONAHA.120.16790. <https://www.ahajournals.org/doi/10.1161/HYPERTENSIONAHA.120.16790>
14. **Wang J, Geng X, Sun J, et al.** The risk of periodontitis for peripheral vascular disease: a systematic review. *Rev Cardiovasc Med*. 2019;20(2):81–89. doi:10.31083/j.rcm.2019.02.52
15. **Aarabi G, Thomalla G, Heydecke G, Seedorf U.** Chronic oral infection: an emerging risk factor of cerebral small vessel disease. *Oral Dis*. 2019;25(3):710–719. doi:10.1111/odi.12912
16. **Yang T, Maki KA, Marques FZ, et al.** Hypertension and the gut microbiome: a science advisory from the American Heart Association. *Hypertension*. 2025;82:e1–e15. doi:10.1161/HYP.0000000000000247. <https://www.ahajournals.org/doi/10.1161/HYP.0000000000000247>
17. **Webb AJ, Patel N, Loukogeorgakis S, et al.** Acute blood pressure lowering, vasoprotective, and antiplatelet properties of dietary nitrate via bioconversion to nitrite. *Hypertension*. 2008;51(3):784–790. doi:10.1161/HYPERTENSIONAHA.107.103523
18. **Pietropaoli D, Del Pinto R, Ferri C, Wright JT Jr, Giannoni M, Ortu E, Monaco A.** Poor oral health and blood pressure control among US *hypertensive* adults. *Hypertension*. 2018;72(6):1365–1373. doi:10.1161/HYPERTENSIONAHA.118.11528. PMID: 30540406.
19. **American Heart Association, Harris Group.** Market research survey of dental patients. Unpublished data. American Heart Association; 2024.
20. **American Heart Association, The Olinger Group.** Market research survey of dental professionals and health care professionals. Unpublished data. American Heart Association; 2024.
21. **Centers for Disease Control and Prevention.** (Image) Oral-health infographic. <https://www.cdc.gov/oral-health/media/images/100m.jpg>. Accessed March 08, 2025.