SANTA FE GROUP
Improving Lives Through Oral Health

Santa Fe Group Continuum on the Benefits of Integrating Oral Health into Overall Health*

Goals and Background

Through a series of webinars, background analyses, published papers and a virtual Salon in 2021, the Santa Fe Group (SFG) undertook to explore the Benefits of Integrating Oral Health into Overall Health. The Continuum engaged stakeholders from multiple sectors and disciplines, including science, clinical care, public health, economics, education, health systems, insurance plans, the private sector, and non-profit and advocacy entities, to explore real-world examples of integrating oral health into overall health, along with challenges and opportunities. The Continuum aimed to share the evidence, determine the need for additional evidence, and examine current policies and practice. Through its many events and discussions, the SFG identified alignment on needed policy and practice changes with the goal of helping to catalyze an oral health integration movement and learning community.

The context for the Continuum is the US healthcare system: it is the most costly in the world, but delivers poorer outcomes compared with other developed nations.[1] Racial and ethnic health disparities abound, as has become painfully evident during the pandemic. Meanwhile disparities in oral health and access to care are more exaggerated than for any other area of health, and potentially aggravated by the pandemic.[2] They are embedded in the separation of medicine and dentistry, and integration of oral health is a necessary step towards achieving health equity.

While dental care was made an essential health service for children under the Affordable Care Act, no similar strategies have shored up access to dental care for adults. In all, some 75 million Americans still lack dental coverage, including 27 million seniors and other vulnerable individuals, because Medicare beneficiaries are not entitled to regular dental care. The growing numbers of older adults and an increase in chronic conditions (85% of persons aged 65 and older have at least one chronic health condition) are contributing to the rising costs of health care, which is unsustainable: Medicare is predicted to be insolvent by 2024.

Regular preventive oral health care could make a big dent in disease (and save dollars). Indeed, as the webinars and Salon highlight, there is a growing body of evidence that supports the biological, economic, and social importance of oral health for overall health and quality of life. More studies now provide evidence of lowered medical and hospital costs when patients access regular preventive dental care, especially those with chronic health conditions.

To achieve improved patient health at lower costs, the health system must incentivize health. Value-based models offering team care in patient-centered health homes are at the forefront of this transformation. Yet oral health is typically left out of these initiatives and calculations, owing to the long separation of medicine and dentistry. Continuing disparities, a rapidly transforming health system, and the pursuit of health equity mandate the integration of oral health into overall health. This is our defining moment.

What follows is an overview of key themes, recommendations and summary points from all sessions, linked to relevant components of the Continuum.[3] Although much work remains, the examples and cases highlighted throughout the Continuum provide substantive hope for change as evidenced by new science and technologies, successful initiatives and policy steps already underway.

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*All summaries were prepared by Wendy E. Mouradian, MD, MS, Dushanka Kleinman, DDS, MScD, Continuum Co-Chairs, and Joan Wilentz, MA, incorporating comments from all Session Moderators.

Overview of Continuum Components	
REFERENCE KEY: W = Webinars 1-4; S = Salon Sessions I-VI; F = Frontiers in Dental Medicine publications	
WEBINARS	
W-1	Learning from Science: How oral-systemic collaborations can advance research, policy, and health outcomes
W-2	Learning from Clinicians and their Patients: Why oral health collaboration is essential to overall health outcomes
W-3	Learning from Health Systems: What can be done to scale up integration?
W-4	Learning from the Convergence of Medical and Dental Insurance: Who's driving change?
SALON SESSIONS	
S-I	The Imperative for Integration
S-II	The Face of Integration: From Science to Clinical Care and Back Again
S-III	Technology-Empowered Consumers: Important Force for Healthcare Integration
S-IV	The Face of Integration: Learning from State and Federal Health System Integration Initiatives
S-V	The Business of Integration: Paying for Dental Care; Economics, Health Policy, and Integration
S-VI	Collaborations to Accelerate Integration
FRONTIIERS PAPER	
F	The entire collection of papers, "Integrating Oral and Systemic Health: Innovations in Transdisciplinary Science, Health Care and Policy," a Research Topic collaboration between *Frontiers in Dental Medicine* and the SFG in parallel with this Continuum, can be accessed in a downloadable e-book format at https://www.frontiersin.org/research-topics/16161/integrating-oral-and-systemic-health-innovations-in-transdisciplinary-science-health-care-and-policy.

KEY THEMES FROM THE SANTA FE GROUP CONTINUUM

The Salon opened by asking: How can we accelerate change to achieve health equity through collective action in a rapidly changing and evolving health care system? A series of themes and answers emerged across the two days, revisiting many insights from the webinar series. A vision of what an equitable health care system would look like bookended the Salon itself, inspiring participants to think of a system where care is available to all. It includes oral health, which is no longer siloed from overall health.

1. FOCUS ON HEALTH EQUITY BY ADDRESSING DISPARITIES in oral health and access to care through multiple strategies. Continuum participants, including academicians, scientists, public health leaders, non-profit representatives, health advocates, the private sector and attendees, considered strategies to reduce disparities by integrating oral health. (S I, S IV)

- **Integrate oral health into medical care systems by removing structural barriers.** The separate systems are at the root of disparities in oral health and access to care, and extend to all aspects of health care, including professional education, clinical practice, government and institutional policies and regulations, insurance models, health system administration, billing, coding, health records management, and culture, among others. Some or all of these structural barriers may need to be addressed in integration initiatives.

- **Recognize and accelerate the convergence between medicine and dentistry** that is already taking place. Take advantage of the fact that medicine and dentistry are being transformed by many similar trends from within the professions (eg, interprofessional education, precision medicine/dentistry, value-based payment models, practice and corporate consolidation) and from the larger societal context (eg, shifting demographics, consumer activation, the social justice movement). This synergy provides the opportunity and the context for partnerships, learning, and collaborative action. Such efforts could help overcome current structural barriers and allow all health care providers to address each patient's needs holistically.

- **Build the next generation of leaders.** This includes the need to build diversity, equity and inclusion perspectives into all efforts, and the requirement to recruit, mentor, empower and support the next generation of health care leaders for an increasingly diverse country; this goal involves acknowledging our legacy of racism and its influence on all health systems. We also need to provide all health leaders with an appreciation of the importance of oral health.

- **Listen to family and community voices; learn from community efforts.** Listening to stakeholders empowers them so they can engage in problem-solving for their own communities. We need to think across the lifespan stages, from pre-conception to senior years, and consider intergenerational structures (child and parent; caregivers of infants and the elderly), as well as recognize the importance of safe neighborhood and built environments, social and community supports, food and nutrition availability, economic stability, and educational access and quality in order to advocate for public health/policy changes. The breadth of influences calls for cross-sector approaches to address social determinants of health.

2. LEVERAGE THE EXISTING SCIENCE and expand basic, applied and behavioral research initiatives to include oral and systemic health components. This includes implementation and translation science, health services research and epidemiology. Collaborative efforts are needed to optimize scientific progress and avoid stalled science resulting from silos, and to facilitate translation of knowledge to clinical and policy levels to improve the health of all communities. (W1, S II, F[4,5])

- **Create strategies to increase science collaboration,** such as adding oral health components to existing grant programs.

- **Leverage existing training mechanisms and develop new ones** to create integrated research training experiences and interdisciplinary mentoring.

3. LEVERAGE TECHNOLOGIES to connect to consumers and patients, and to better integrate medical and dental care systems. (S III, S II, S V)

- **Advocate for the use of interoperable electronic health records** (EHRs) to promote collaboration, ensure patient safety, and facilitate medical and dental integration. EHRs are also an essential component of Learning Health Systems, along with other information technology tools. Such "smart systems" integrate internal data with external evidence, share new data with clinicians, and apply the best evidence to patient care in real-time.

- **Utilize Teledentistry more effectively.** Although the use of Telehealth has become widespread in health care, dentistry has not continued to use this modality since early in the pandemic. While dental culture still favors procedures, and 1 – 2 preventive visits a year is typical, more contact could improve patient engagement and health outcomes.

- **Assess new technologies** (eg, smart toothbrushes) and health apps with oral health components (eg, GoMo app to help cancer patients manage their oral health) for appropriate applications in clinical care and research.

4. STUDY NOVEL INTEGRATION INITIATIVES FOR SCALING UP. Integration initiatives are complex efforts that utilize workforce, policy and financing strategies, typically require administrative buy-in, and are most effectively implemented when affected individuals or communities are involved in planning. A wide variety of settings and integration programs were considered.

- **Learn from clinicians and patients** to develop policies and practices that integrate oral health, especially for at-risk patients. At-risk groups include those with chronic conditions, and patients undergoing cancer treatment or transplantation (all of whom need regular and sometimes urgent dental assessment), among others. In Webinar 2, the incoming President of the United Network for Organ Sharing (UNOS) noted that oral health influences the success of transplantation and that timely and effective dental care was very important. Other at-risk groups include hospitalized patients; individuals who present to Emergency Departments (EDs); or those who are otherwise vulnerable. The ED setting is particularly problematic: While the federal Emergency Medical Treatment and Labor Act (EMTALA)[6] requires that EDs accept such patients, the lack of facilities and staff trained to assess and treat oral health problems is a continual conundrum in EDs, where dentists are rarely available. Dental diversion programs have been developed to get patients to dental offices for care, but their use is not widespread, and may not extend to off-hours. Additional focus on this problem is desperately needed (particularly now when EDs are burdened by COVID-19 patients seeking care). (W 2, S IV)

- **Learn from health system integration models,** including non-profit, private, state and national initiatives. There are currently many models of integration, each with varying targets and levels of integration. Health systems that have access to both medical and dental services, and may have integrated EHRs, are especially well-positioned to advance clinical integration initiatives. Health system integration initiatives presented at the Salon involved the Veterans Health

Administration, the Indian Health Service, Kaiser Permanente, the Marshfield Clinic, Rocky Mountain Network of Oral Health Integration, Apple Tree Dental, and the Oregon Health Plan—but there are many others. Documenting and sharing approaches and pathways used to reform existing systems (including information on the funder, design, scope, evaluation, etc) can greatly facilitate others' adoption of similar programs. (W 3, S IV, S V, F[7,8,9,10])

- **Learn from insurance companies' experience and economic analyses.** Many studies have demonstrated the health benefits and cost-effectiveness of providing regular dental care, especially for patients with chronic conditions, as summarized at the Salon. A new study sponsored by the SFG, the first demonstrating that preventive dental care can generate substantial total health savings in a large Medicaid population, was published in 2021 and presented at the Salon.[11] Also discussed there were the experiences of several insurance companies currently offering such care (eg, United Concordia, Blue Cross Blue Shield of Massachusetts, Life and Specialty Ventures). These programs continue to show positive results. These findings should be tested in future studies and initiatives, eg, through demonstration projects within Medicare/Medicaid and other programs. Perhaps not surprisingly, considering the evidence for the economic benefits of dental care, the trend towards convergence of dental and health insurance is increasing, according to surveys by the consulting firm West Monroe; that trend is another potent driver for integration.[12] (W 4, S V)

- **Learn quality improvement lessons.** To mobilize change in systems, consider lessons from the Veterans Administration successful non-ventilator hospital-acquired pneumonia prevention program (NVHAP) (which utilized nurses to deliver oral hygiene to patients); the Oregon Experiment (which utilized value-based strategies and incorporated dental care into a primary care model); and the Joint Commission's (JC) extensive experience with quality improvement (QI). Elements for success include engaging end-users, planning for sustainability from the beginning, and developing process and outcome measures to assess change. However, to drive change requires more than measurement: it takes leadership (with a clear vision and broad support), a safety culture (characterized by the ability to report problems without fear of retribution), and QI capacity. Programs must be comprehensive: instead of just thinking of "doing the right thing," focus on "doing everything right." There is much for dentistry to learn from these quality initiatives, although there is currently not that much incentive for QI efforts in solo or small group practices. However, larger dental systems are utilizing these approaches. The continued development and testing of appropriate quality measures and national leadership will also advance QI in the dental context. (S IV)

5. OPTIMIZE THE USE OF THE HEALTH WORKFORCE. Although there was not a specific session on the topic, the value of a diverse and diversified workforce came up multiple times within integration initiatives and policy discussions. Several examples typified optimal utilization of workforce. (S I, S VI, F [7,13])

- **Training non-dental workforce in oral health can lead to big change.** For example, the VA program discussed above utilized appropriately trained nurses to provide oral hygiene to patients to decrease "infection load" (which was very helpful framing), and thereby decrease pneumonia rates and save lives. This powerful approach should be considered broadly, according to the Joint Commission brief on this topic.[14] Currently the VA is implementing this approach in nursing homes and long-term care facilities, and discussing with other non-VA systems as well. A critical next step also under consideration is elevating nurse-delivered oral hygiene to a national nurse quality measure. This is an example of how non-dental professionals trained in oral health can lead change. The importance of oral health knowledge was also very clear in the clinical settings of cancer therapy and transplantation, where knowledgeable providers refer patients for dental care and maintenance; good oral health is mandatory in the setting of immune suppression. (S IV, W 2)

- **Primary care providers can deliver pediatric oral health** preventive interventions, a recommendation of the American Academy of Pediatrics that has been adopted by many; it is now reimbursed by Medicaid and some private insurers. This strategy is utilized within the Oregon Experiment, and the Rocky Mountain Network of Oral Health Integration, among other programs. In some programs, health providers counsel pregnant women on the importance of their oral health and its role in caries transmission. However, there is in general much room for adult medical providers to acquire more oral health knowledge and skills. This could make a big difference for patients with diabetes and cardiovascular disease, for example. Practical training programs exist (such as the Smiles for Life curriculum), but implementation in busy medical practices is not widespread. (S IV, W 3)

- **Dental providers have an important role to play in screening for medical conditions,** as was considered by several presenters. The potential for closing medical care gaps in patients attending the dental clinic is a strategy being utilized and evaluated within the Kaiser Permanente system and Marshfield Clinic systems. (S V, F [9,10])

- **State licensing policies control** which types of providers can perform which services where: changes in these regulations could better meet the needs of underserved groups in many settings from schools to Emergency Departments. For

example, dental therapists can be utilized in many settings in Minnesota, as the Apple Tree Health example illustrated. And during the pandemic, many states authorized dentists to give COVID-19 vaccines, which federal mandates then extended to all dentists and dental hygienists. (W 3)

- While health training programs for nurses and physician assistants have advanced, there is room for more application among other healthcare providers as noted. In addition to physicians providing care for adults, **pharmacists, social workers, frontline and community workers could play important roles** in the stream of oral health care. (S VI)

- All of these efforts would be facilitated if **all health professional training programs** elevated the importance of interprofessional education and practice experiences AND were required to include "missing" oral health content as a perfect example of why collaborative practice is needed.[15] Additional efforts could engage educational and credentialing agencies (eg, ADEA and CODA for dentistry, for example; and other entities of relevance for Nursing, Medicine, Physician Assisting, Pharmacy, Social Work).

- To underscore, increasing the **diversity of the workforce is a critical strategy** for addressing health disparities with carefully thought out and funded pipeline strategies, as reiterated by multiple presenters. (S I, S VI)

6. ADVOCATE TOGETHER FOR MEANINGFUL POLICY CHANGE.

- **Advocate for health system changes that incentivize health** and not procedures and acute care. Even though such a reallocation will not be easy, we are at an existential crossroads. Health equity will not be possible without value-based strategies. Oral health advocates should align with primary care movements calling for payment reform (such as the Patient-Centered Primary Care Collaborative).

- **Continue to advocate for a dental benefit in Medicare Part B;** and short of that, advocate for demonstration projects to consider health and cost-effectiveness of such programs.

- **Consider state level policy changes such as broadening state practice acts** to allow use of mid-level providers in more settings (eg, dental hygienists/therapists in primary care settings, emergency departments, hospital settings), and if needed, to allow dentists to provide basic primary care services.

- **Call for wider application of the use of nurses to provide oral care in hospitals.** Address the difficulties Emergency Departments experience managing dental patients. Call for more discussion with the Joint Commission and other advisory and credentialing bodies.

7. APPLY ORAL HEALTH LITERACY/HEALTH LITERACY. **The pandemic has made very clear the critical nature of accurate health information. Without it, individual, providers and policymakers cannot make informed decisions. Unfortunately, the longstanding separation of oral health from the larger health system has led to a widespread oral health knowledge gap.**

However, the skills, attributes and approaches of health literacy can support and promote integration efforts, as well as paradigm change.[16] As defined by Healthy People 2030,[17] health literacy is an attribute of individuals (personal health literacy), and essential for finding, understanding, and using information and services to inform their oral and general health decisions and actions for themselves and others. Health literacy is also an attribute of organizations (organizational health literacy), the degree to which organizations, such as health care systems, "equitably enable individuals to find, understand and use information and services to inform health-related decisions and actions for themselves and others." Within this broader definition, health literacy is viewed as essential to achieving oral and general health integration. Key strategies to advance integration in partnership with oral and overall health literacy include:

- **Target efforts and address opportunities to improve oral/overall health literacy** at the societal level, within education systems (pre-K, K-12, higher and health professions education), and in all health care settings and systems.

- **Focus on increasing the oral health awareness** of the public, healthcare providers and policy-makers.

- **Incorporate evolving knowledge base,** policies and social determinants of health into health literacy efforts

8. PARTNER! PARTNER! PARTNER! DON'T GO IT ALONE! **The oral health integration movement has suffered from a lack of cohesive and collective action—despite many excellent and important initiatives working independently.[18] There is no place or platform where these efforts coalesce, and the need to jumpstart such a movement was on the minds of the Continuum planners from the beginning.**

- **Join with other transformational efforts** such as the primary care movement for payment reform, which the Patient-Centered Primary Care Collaborative and others are supporting

- **Consider ways for the many oral health integration efforts to stay connected** and magnify impact with many voices for collective action. Suggestions include an annual oral health integration conference; the expanded use of online "platforms" to gather advocates; and quarterly webinars hosted by different groups.

- **Keep a common vision:** integrated, equitable, whole person care for all that includes oral health.

- **Work together to identify priorities.**

- **Use a learning community paradigm** to facilitate continuous engagement.

9. SEIZE OUR DEFINING MOMENT: In the face of grievous health disparities, the extreme challenges of the pandemic, the rapidly transforming health system, and current policymaker interest in oral health (eg, as evidenced by Congressional interest in a Medicare dental benefit), there is an urgent need for broad stakeholder collaboration and forward movement.

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SALON SESSION SUMMARY I

The Imperative for Integration: Seizing Our Defining Moment

INTRODUCTION:
Steve Kess, MBA, *President, Santa Fe Group*

MODERATORS:
Dushanka Kleinman, DDS, MScD, *Professor and Principal Associate Dean, University of Maryland School of Public Health;*

Wendy Mouradian, MD, MS, *Professor and Associate Dean Emeritus, University of Washington School of Dentistry*

PRESENTERS:
Rena D'Souza, DDS, MS, PhD, *Director, National Institute of Dental and Craniofacial Research (NIDCR)/NIH;*

Timothy Ricks, DDS, MPH, *Rear Admiral and Assistant Surgeon General, Chief Dental Officer, USPHS;*

Harold Slavkin, DDS, *Dean and Professor Emeritus, University of Southern California, former Director, NIDCR/NIH;*

Frederick Isasi, JD, *Executive Director, Families USA;*

Joan Reede, MD, MS, MPH, MBA, *Professor and Dean for Diversity and Community Partnerships, Harvard University School of Medicine*

The opening Session of the Salon called for accelerating integration to alleviate disparities, achieve health equity and improve the public's health. From the research perspective, NIDCR Director Dr. Rena D'Souza noted there was an increased emphasis on translational science to address diversity, equity and inclusion in the institute's new strategic plan (2021-2026), to ensure all benefit from scientific advances. Other elements include more cross-government and private sector collaborations, and an expansion of the dental public health workforce. The forthcoming *Oral Health in America* will provide a status update on the nation's oral health. Along with commentaries to appear shortly after in the *NEJM* and *Lancet*, this Report will create the opportunity for renewed focus on oral health nationally and resonate with global oral health efforts.

Dr. Mouradian summarized some of the findings of white papers leading up to the Salon. These key points include utilizing individual and organizational health literacy to change paradigms for oral health; identifying and overcoming structural barriers to integration embedded in the practice and culture of the two professions; and intensifying interprofessional education and practice models, which will require a diverse and diversified workforce.

This is "our defining moment," Dr. Timothy Ricks noted, bringing urgency to this call for action—a theme that reappeared throughout the Salon. He called for multi-directional health care—with dentists participating in primary care, as well as other health professionals addressing oral health. Dr. Ricks also summarized two successful collaborations he has been involved in: the 8-year campaign that lowered early childhood caries rates among Native American and Alaska Native children grounded in an interprofessional, community-based model, and the National Oral Health Public-Private Coordination Group, which brings some 60 medical, dental and public health organizations together to address the implications of the pandemic for oral health.

Dr. Harold Slavkin placed the Salon within the US historical context, tracing the changes from our post-Civil War rural society to our complex, largely urban society, with its stark divides of rich and poor. This generated a discussion of the roots of health disparities in a health system that does not serve vulnerable populations (for example, the separate medical and dental systems), and in upstream social determinants of health related to families, communities, food security, safe neighborhoods, educational opportunities, etc. Mr. Frederick Isasi noted that these critical ingredients, so necessary for health, are rarely addressed by society or the fee-for-service healthcare industry that favors costly procedures and acute care over preventive and community investments. Speakers asked what opportunities might be created if a fraction of health care spending could be

reallocated to health and well-being through these upstream causes? Examples of successful programs included Dr. Joan Reede's efforts to bring underrepresented minority students into the health professions, empowering them to move creatively into leadership roles. Minorities will be making up the majority in a few decades, she noted. We must see that today's young people are brought into the mainstream for the good of the whole nation.

KEY TAKE-AWAYS:

- **To achieve health equity, we must integrate oral health into overall health.**
- To achieve integration, **we must create a more diversified workforce** to deliver team care—including oral health in medical settings and primary care in the dental office.
- To achieve health equity, **we need a more diverse workforce**, which will require proactive pipeline and leadership efforts.
- To achieve health equity and improve health outcomes, **we must reallocate resources to upstream causes of poor health** at the family, neighborhood and community level (address social determinants of health).
- **To achieve these goals, collaborations and partnerships at every level** will be needed.
- To ensure all groups benefit equally from the many scientific advancements, **implementation science programs will need to increase.**
- **The soon-to-be-released 2021 Report *Oral Health in America***, with follow-up editorials in *NEJM* and *Lancet*, can bring renewed focus to oral health nationally and resonate with global efforts.

SALON SESSION SUMMARY II

The Face of Integration: From Science to Clinical Care and Back Again

MODERATORS:
Martha Somerman, DDS, PhD, *Field Chief Editor, Frontiers in Dental Medicine, and former Director, NIDCR/NIH;*

Laurie McCauley, *Dean, University of Michigan School of Dentistry*

PRESENTERS:
Luigi Ferrucci, MD, PhD, *Scientific Director, National Institute on Aging;*

George Hajishengallis, DDS, PhD, *Professor, University of Pennsylvania*

Dr. McCauley introduced this session by reprising her earlier webinar presentation[1] on the last decade of research, enumerating the many systemic conditions, including diabetes, Alzheimer's disease, lung, liver and cardiovascular diseases, associated with periodontal disease. Bacteria in the oral microbiome are found in these and other tissues across the body. Research continues on the nature of these linkages, and whether improving a patient's periodontal health can lessen the severity or lower the odds of developing associated systemic diseases. She proposed that improvements in health could result from a convergence of **implementation** science; **precision medicine** (tailoring treatments to meet the unique genomic and other characteristics of the individual); and **learning health systems**—into which data are continuously fed to allow systems to evolve and improve. This is not possible without interoperable electronic health records. She reiterated the importance of research into health disparities and educational reforms for future practitioners to eliminate the silos that have separated physicians and dentists to the detriment of patients.

Dr. Luigi Ferrucci, a geriatrician, described **biologic** aging as a competition between damage and repair over time, in which damage begins at the molecular level, moves to the **phenotypic** level (with physical signs) and leads to the declines of **functional** aging. Along the way, individuals develop a cluster of diseases, leading him to ask if it wouldn't be better to slow down the aging process itself? He also contended that oral health was a phenotype of aging. If we could maximize oral health, perhaps we could forestall age-related declines and a range of systemic diseases? He then presented a series of studies from the US and abroad that associate poor oral health with cardiovascular disease, all-cause mortality, dementia, greater amyloid in the brains of normal adults, frailty, and inability to function. Yes, he concluded, oral health is a phenotypic marker of aging.

Immunologist Dr. Hajishengallis presented his work on possible root causes of periodontal and other inflammatory conditions.[2] His work indicates that inflammatory immune cells, first generated by bone marrow hematopoietic stem and progenitor cells (HSPCs), can be potential drivers of both periodontal disease and other chronic systemic diseases. When exposed to inflammatory stimuli, HSPCs can become "trained innate immune cells" that are hyperinflammatory. They can then circulate back to periodontal tissues or other inflammatory sites, intensifying the individual's signs and symptoms of inflammation. A second aberrant change in bone marrow cells that can occur is called Clonal Hematopoiesis of Indeterminate Potential (CHIP). This change is thought to occur in 10 percent of adults over 65, and 30 percent of those over 85. CHIP is associated with age-related accumulations of mutations in progenitor cells, in which the mutated cells acquire a proliferative advantage so that their progeny dominate the bone marrow; these cells are also hyperinflammatory. He recommended screening older adults for CHIP in light of the increased risk for inflammatory disorders they confer.

Discussing these findings and other questions, participants agreed that oral health was a phenotype of aging, and that early oral disease could mean premature or accelerated aging. This could have particular relevance for vulnerable populations that suffer poor oral health from an early age. When asked about CHIP affecting bone marrow transplantation, Dr. Hajishengallis noted that concern was warranted, and that donors should be screened: if donor marrow includes CHIP mutated cells, the

progeny they generate in the recipient could increase the risk of severe periodontal disease or other systemic diseases. Finally, the speakers considered the current culture of science, agreeing that further oral-systemic scientific advances would require overcoming research silos, and encouraging communication and collaboration across specialties. Dr. McCauley suggested adding oral health components to larger grants to overcome the biomedical-dental divide within the research enterprise. Broader communication with policymakers, research funders and the public will also be needed to accelerate adoption of new science.

KEY TAKE-AWAYS:

- Many common health conditions are associated with periodontal disease, and many oral pathogens are found elsewhere in the body.
- To advance understanding of these oral-systemic links will require challenging the siloed culture of science to promote broad research collaborations across specialties.
- To ensure adoption of new science will require more translational science, disparities-focused research, and broad communication with policymakers, funders, and the public.
- Oral health can be considered a phenotype of aging, and oral disease could mean premature or accelerated aging—an important sign for clinicians to recognize.
- Newly explored mechanisms at the bone marrow level could explain some of the association of periodontal and systemic diseases. This tendency increases with age.
- Bone marrow donors should be screened for presence of these mutated cells, which could harm recipients with their potential to aggravate inflammation or trigger new disease.
- Today's evolving health paradigm includes precision medicine (personalized prospective healthcare) that includes all an individual's risks from genomic to environmental factors.
- To advance integration of oral health into health systems, critical tools are needed, such as learning health systems, and interoperable EHRs, among others. Learning health systems facilitate the practice of precision medicine as new data on patients are received and integrated, with updated recommendations and prompts.
- To ensure health professional medical and dental trainees are no longer siloed will require enhancing current interprofessional educational experiences.

SALON SESSION SUMMARY III

Technology-Empowered Consumers: Important Force for Healthcare Integration

MODERATORS:
Michael C. Alfano, DMD, PhD, *Dean and Executive Vice President Emeritus, New York University (NYU);*

Teresa A. Dolan, DDS, MPH, *Vice President and Chief Clinical Officer, Dentsply Sirona*

PRESENTERS:
Maria Ryan, DDS, MS, PhD, *Vice-President and Chief Clinical Officer, Colgate-Palmolive, Inc;*

Robert Gold, *Founder and Chief Executive Officer (CEO) of GoMo Health;*

Jessica Andersen, RN, BSN, *Chief Director of Clinical Program Strategy and Development, GoMo Health;*

Michael Baird, *CEO, Henry Schein One;*

Stephen Thorne, MHA, *Founder and CEO, Pacific Dental Services*

Session III focused on additional accelerators of healthcare integration. Dr. Maria Ryan summarized the projects she has been involved in that aim to connect the consumer's total health with technology-enhanced oral health tools. She noted these efforts reflect the Four Ps of Systems Biology: they are **predictive** (use diagnostic tests), **preemptive** (use preventive strategies), **personalized** (stratify patients to degree of risk), and **participatory** (patients engage in self-management). For example, one of these technologies is a "smart toothbrush" developed by Colgate, which has sensors that record the duration, extent and location of tooth surfaces that have been brushed, along with frequency. This patient-generated health data can be fed to consumers in real-time to improve their self-care skills. Versions for children exist that have games and rewards. A partnership with Verily (a part of Google) will mine data looking for clues for early detection of specific chronic diseases; and a second project will determine the effects of intense periodontal therapy and connected technologies on a subset of patients with periodontal diseases and either diabetes or cardiovascular disease, using the smart toothbrushes. She also announced a new partnership with Apple, with a connection to Apple watches and a new oral health component in the Apple Heath App, which includes the toothbrushing information.

Robert Gold, who described himself as a behavioral technologist interested in motivation, activation, and resiliency, spoke to some of the barriers to oral health integration for people including time, money, stress, hassle factors and learned behaviors. To counter these, oral care can be prioritized if it is simple, increases patient satisfaction, decreases staff time, bolsters a practice's "brand" in the community, and enables integration of interdisciplinary care in a practical way that lowers payers' costs. He described a program GoMo developed with Rutgers Cancer Institute in New Jersey that enrolls cancer patients in an oncology message track. Patients receive regular text messages on oral health to monitor for dry mouth, mucositis, and other side effects of cancer care. Patients are asked questions, and depending on their answers, provided with specific and detailed information and recommendations including videos, if needed. Consumers feel empowered and able to manage their own care with these tools. Next steps for GoMo will be to include oral care in electronic messaging related to diabetes and cardiovascular care.

The Session next considered the experience of two dental executives related to integration and the issue of interoperability of electronic health records (EHRs) in particular. Mr. Thorne presented his experience integrating a number of medical and dental offices utilizing the medical records system Epic. He said dentists were pleased to be able to access medical records

immediately and related a case from one dentist whose patient undergoing an implant forgot to tell him she had had a heart attack several months prior. With access to an integrated electronic health record, it is much easier for clinicians to access pertinent health information, as well as reach out to each other. Both executives agreed that it was not a simple problem, however, as many patients have multiple records from different specialists that are not all in the same system—so reconciling and consolidating records will be challenging. It was suggested that possibly a technology giant such as Apple, with its health apps, might become the keeper of the patient's EHRs, with patients uploading new data and files to their health providers. Another barrier mentioned was the lack of dental diagnostic codes, but both executives thought dentists would eventually adopt diagnostic codes—especially those installing Epic or software permitting interoperability. The speakers provided examples of connected technologies to assist those who have disabilities or who are in nursing homes or long-term care facilities Finally, a question was posed to the group about a dental benefit in Medicare. There was consensus among the participants that a dental benefit in Medicare should be included in Part B along with other medical benefits, rather than in a separate program as suggested by others.

KEY TAKE-AWAYS:

- Consumer-facing technologies have a great potential to empower patients to manage and improve their own health (for example, connecting a smart toothbrush to an Apple Watch).
- Such efforts can be **predictive, preemptive, personalized,** and **participatory** to optimize the consumer benefits achieved.
- Major companies such as Colgate-Palmolive, Google and Apple are engaged in projects that will explore the potential of these technologies in specific groups of patients, as well as for a general usership through Apple Watch and other apps, while a GoMo health application enables cancer patients to monitor their own oral health.
- Interoperability of EHRs remains a major obstacle, but some progress has been made in this area.
- Dental diagnostic codes should eventually replace procedural codes, especially as more dentists adopt EHRs utilizing diagnostic codes.
- Consumer-facing technologies have the potential to help patients with disabilities or in long-term care facilities to manage their own oral health.
- Participants agreed that if a dental benefit is added to Medicare, it should be included in Part B, signaling it is a part of overall health care.

SALON SESSION SUMMARY IV

The Face of Integration: Learning from State and Federal Health System Integration Initiatives

MODERATORS:
Kathryn Atchison, DDS, MPH, *Professor, School of Dentistry Division of Public Health and Community Dentistry, University of California, Los Angeles;*

Judith Haber, APRN-BC, PhD, FAAN, *Ursula Springer Leadership Professor in Nursing at NYU Rory Meyers College of Nursing, NYU*

PRESENTERS:
John Kitzhaber, MD, *former Governor of Oregon;*

Shannon Munro, PhD, APRN, BC, NP, *National Implementation Lead for Project HAPPEN, Department of Veterans Affairs*

REACTORS:
David Baker, MD, MPH, *Executive Vice-President, the Joint Commission;*

Bob Russell, DDS, MPH, MPA, *State Public Health Dental Director, Iowa Department of Public Health*

Session IV considered two large health system integration efforts: the Veterans Health Administration (VA) program to prevent non-ventilator hospital-acquired pneumonia (NVHAP), and the Oregon Experiment. First, Dr. Shannon Munro described the VA's nurse-led program to reduce the incidence of NVHAP, a condition associated with high morbidity, mortality, and costs of care. In this program, nursing staff provide a standardized oral hygiene protocol to hospitalized veterans. Tested first in a small number of hospitals, this successful program is currently rolling out nationally in all VA hospitals and in their long-term care facilities. Leaders of this initiative are now working with non-VA systems and also striving to make this intervention a quality measure for all nurses nationally. Many elements of this quality improvement (QI) program were discussed. They align well with guidelines issued by the Joint Commission (JC), noted JC executive Dr. David Baker. Key elements of successful QI programs include having 1) strong leaders who state goals and pursue them; 2) a safety culture in which workers can report concerns without fear of retribution; and 3) adequate QI capacity (the ability to design, execute, implement proposed reforms). Other caveats include the advisability of re-working processes as well as planning for sustainability at the outset. Particularly remarkable has been this program's ability to maintain nurse and staff engagement. A conservative estimate of savings early in this program was $200 million annually. The JC has recently released a "safety brief" calling attention to NHVAP prevention with oral hygiene interventions.[3] Impressed by the success of the program, Session reactor Dr. Bob Russell asked, with such a track record of success, why is this not a protocol in place in every hospital? Asked about the difficulty of implementing QI programs in dental offices, Dr. Russell noted capacity and incentives for QI are just not there; nor have many measures been tested.

The Oregon Experiment was launched with a federal waiver from the Centers for Medicare & Medicaid Services (CMS) that allowed the state to completely transform their Medicaid system over a number of years. As described by Dr. John Kitzhaber, former Governor of Oregon and Emergency Department physician, the Oregon Medicaid Health Plan moved from a traditional fee-for-service program that was in debt and did not serve all the Medicaid population, to a value-based program that could incentivize local Community Care Organizations (CCOs) to improve the health of patients while covering all those eligible. The program works under a capitated model, with CCOs able to make decisions about the best way to allocate investments, with bonuses based on successful metrics. Critically, annual growth is capped at 3%. Dental care was brought into the program early, with goals of finding all patients a health home that includes oral and mental health care, and training primary care providers in preventive oral health care such as application of fluoride varnish or counseling pregnant women and caretakers on control of caries and caries trans-

mission. Dentist reimbursement rates were raised to ensure adequate participation. The program's success over time is strong evidence of the power of replacing fee-for-service models, which incentivize delivery of health care procedures, to value-based models which incentivize health. In this way key upstream social determinants of health at the family and community level that contribute to disease and disparities can be addressed.

The inadequacy of hospitals and Emergency Departments (EDs) to manage dental problems was discussed at some length by this panel of health professionals. There is a disconnect between the federal Emergency Management Treatment and Labor Act (EMTALA)[4] that requires ED patients be treated and stabilized, and the lack of ED capacity and physician oral health knowledge in treating dental emergencies. A number of suggestions and solutions were considered. These included the use of dental therapists/dental hygienists to stabilize patients in EDs and provide treatment, as well as hospitalist-dentists to attend to oral health needs of medically complex patients. ED diversion programs that find dentists who will see these patients have also been tried, but they are not widespread (and may not be available off hours). The theme of preventing upstream causes of dental (and medical) disease in the first place was again emphasized, with a plea for health professions to take a leadership role in reforming the health system. The goal is to move from costly, downstream healthcare to upstream prevention, addressing social determinants to achieve health and health equity. From a dental side, national leadership has been lacking, and as incentives have not been implemented widely, value-based care is moving slowly. Still the rise of dental service organizations and other models may help bring about change.

Finally, panelists were asked about the desirability of a dental benefit in Medicare. All were excited about the potential of a Medicare benefit, especially in Part B, to ensure it would be a part of overall health. Concern that dentists might not accept Medicare patients was countered with the argument that it would be difficult for dentists to refuse such a widespread benefit, were it to be implemented. Finally, it was pointed out that dental care should not start at age 65, but early in life, to prevent the downstream consequences of disease on health and well-being.

KEY TAKE-AWAYS:

- Strong evidence exists for the effectiveness and cost savings of oral hygiene interventions for the prevention of non-ventilator hospital-associated pneumonia in hospitalized patients, based on a large program rolled out in the VA-associated hospitals, recommending this approach for other hospitals and health systems.
- Operational lessons from this project include framing oral health as infection control for nurses, empowering patients to care for their own oral health, utilizing quality measures, and engaging frontline workers in problem-solving.
- Elements for launching successful QI programs provided by the JC include strong leadership, a safety culture in which workers can report concerns without fear of retribution, and adequate QI capacity (the ability to design, execute, implement proposed reforms). Also, planning for sustainability as well as process-redesign should start at the beginning.
- Barriers to implementing QI in dental practices relate to lack of capacity and tested measures.
- The Oregon experiment that transformed their Medicaid program from fee-for-service to a capitated system includes dental and oral care and provides strong evidence that moving to value-based care can result in lower costs and better patient outcomes.
- Key lessons include capping annual growth rates and giving local health systems decision making ability over allocation of resources, including investing in upstream determinants.
- CMS Medicaid waivers can be powerful tools to health system transformation at a state level.
- Emergency room dental care is often very inadequate, with insufficient training of the medical workforce to manage these problems, no consistent follow-up strategies, and lack of dental professionals in most settings.
- Preventing patients from ending up in the ER in the first place will require better management of upstream causes and assurance of regular preventive dental care.
- Interventions to improve ER dental care include utilization of dental therapists, dental hygienists or dentists, and ER diversion programs during the day; not mentioned but tried in some states is the training of physicians in emergency dental measures.
- There was a plea for leadership from health professionals to move to value-based care, including addressing social determinants of health.
- Considering a dental benefit in Medicare, all were in favor of its inclusion in Part B as part of integrating oral health into overall health.
- Finally, it was concluded that ensuring oral health care should not wait until people are 65, but start much earlier, to maintain oral health and prevent progression of dental diseases.

SALON SESSION SUMMARY V

The Business of Integration. Paying for Dental Care: Economics, Heath Policy and Integration

MODERATOR:
Ira B. Lamster, DDS, PhD, *Clinical Professor, Stony Brook School of Dental Medicine*

PRESENTERS:
Steven G. Ullmann, PhD, *Director, Center for Health Management and Policy, University of Miami;*

Amit Acharya, BDS, MS, PhD*, Chief Research Officer, Advocate Aurora Health and Advocate Aurora Research Institute;*

Robert Lewando, DDS, MBA, *Executive Director, Dental, for Blue Cross Blue Shield of Massachusetts;*

Solomon Brotman, DDS, MAGD, *Vice President for National Clinical Operations, Life and Specialty Ventures;*

Quinn Dufurrena, DDS, JD, *Chief Dental Officer, United Concordia*

REACTOR:
Ron E. Inge, DDS, *Chief Dental Officer/Chief Operating Officer, Delta Dental Plan of Missouri*

To start off this Session, health economist Dr. Steven Ullmann summarized a wide swath of data, including international studies on the health and cost benefits of providing preventive dental care, especially for those with chronic diseases such as type 2 diabetes and cardiovascular disease (CVD) in which oral health plays an important role. The financial impact of those conditions on the US healthcare system is estimated near a trillion dollars, with forecasters raising the specter of Medicare insolvency as the size of the population over age 65 grows and these diseases increase in prevalence. Medicare was started at a time when the science behind oral-system interactions was in its infancy—and when dentists were widely opposed to becoming part of this national health initiative. But the science has advanced far (as considered elsewhere in this Continuum[5]), and these linkages bring urgency to the cost and health considerations for older Americans. Further supporting these relationships is the recent NYS Medicaid Data Base Study, the first study of its kind on a large publicly insured population, presented by lead author Dr. Ira Lamster. This study affirms the link between medical costs (measured by hospital days and utilization) and preventive dental care, especially for those with chronic conditions. Increased benefit was associated with more preventive dental visits, suggesting a dose-response relationship.

Another critical integration strategy is screening for medical conditions in the dental office. This approach has received much less attention but has enormous potential. A recent study presented by researcher Dr. Amit Acharya found a high rate of previously unidentified pre-diabetes and diabetes among dental patients at the Marshfield Clinic in Wisconsin. There are many other conditions that could be easily screened for in the dental office. Ensuring follow-up is easier in health systems with interoperable medical and dental EHRs; these can also generate risk models and assist clinicians in deciding who needs to be screened for what.

Even as the possibility of a dental benefit in Medicare is being widely discussed, many private insurers, convinced by the strength of the data on medical cost savings associated with preventive dental care, have already instituted programs that offer dental benefits—often enhanced for patients with chronic conditions such as diabetes and cardiovascular disease for whom optimal periodontal care is critical. Such approaches also reflect the move towards consumer empowerment and more holistic, upstream care (eg, covering air conditioners for patients with asthma, such as Medicare does), Dr. Lewando noted. The next

step is letting patients and providers know of the enhanced benefits and their value. Outreach is essential to engaging these groups, Drs. Dufurrena, Lewando and Brotman agreed, including one-on-one efforts as well as education of professional groups (eg, safety of dental care during pregnancy, etc). Integrated EHRs can also reach medical/dental care teams and patients with updated health information, notification of care gaps and health plan benefits. Dentists may be provided a list of patients eligible for enhanced benefits. Additionally, alternative contracts can be offered that incentivize medical/dental providers by measuring related health outcomes such as HbA1c or C-reactive protein (as indicators of elevated blood sugar or inflammation, respectively)—metrics that are responsive to preventive dental care. Cost and health benefits continue to be observed in systems adopting these strategies: a recent Mayo Clinic research team found a 30% reduction in hospitalization costs for patients with diabetes and/or coronary artery disease over five years in the Arkansas Blue Cross program, Dr. Sol Brotman reported. Along with EHRs, the use of dental diagnostic codes can be an important facilitator of improvement strategies.

Session reactor Dr. Ron Inge mused on the length of time since the Surgeon General's Report (2000) first raised questions about medical-dental integration, and how long the impact of periodontal infections on overall health has been discussed. He cautioned against letting "perfection be the enemy of the good." Integrated EHRs and diagnostic codes won't happen overnight, he said, but there are many good things going on and many opportunities for integration to share with people. Dr. Ullmann thought the fact that Medicare was considering value-based approaches and cost-reducing upstream interventions was also encouraging. Dr. Inge asked, How do we become part of the care stream for treating conditions such as diabetes? What are the next steps, and how can these be coordinated?

This session also ended on the question of a dental benefit in Medicare, with strong general support expressed, despite caveats related to the details. "It is our moment to grasp," Dr. Lewando said. A dental benefit that is integrated into Medicare could do so much to advance integration. Yet not all of dentistry is aligned behind such a move, it was acknowledged.

KEY TAKE-AWAYS:

- A large group of studies utilizing different methodologies across various private and public settings point to the health benefits and cost effectiveness of providing regular preventive dental care. There is biological plausibility for such effects and some evidence for a dose-response effect.
- Integration of screening for medical conditions in the dental office is an important, although not widely practiced, strategy. Screening for pre-diabetes/diabetes would be especially valuable given the high prevalence of this condition in the US. While fee-for-service insurance may not currently cover screening for medical conditions, larger integrated systems can offer these services and ensure follow up through integrated EHRs. Value-based care models would facilitate this strategy.
- A number of private insurers now offer regular or enhanced dental benefits for patients with chronic conditions such as diabetes or CVD, citing the strong evidence of health and economic benefits in their systems.
- There was a call to proceed despite missing elements, such as fully interoperable health records and the widespread use of diagnostic codes, and not let the "perfect be the enemy of the good."
- Finally, all presenters supported inclusion of a dental benefit in Medicare Part B.

SALON SESSION SUMMARY VI

Collaborations to Accelerate Integration

MODERATORS:
Ralph Fuccillo, MA, *Principal, Cambridge Concord Associates;*

Teresa A. Dolan, DDS, MPH, *Vice President, and Chief Clinical Officer, Dentsply Sirona*

Judith Haber, APRN-BC, PhD, FAAN, *Ursula Springer Leadership Professor in Nursing at NYU Rory Meyers College of Nursing, NYU*

PRESENTERS:
Steven G. Ullmann, PhD, *Director, Center for Health Management and Policy, University of Miami;*

Ann Greiner, MCP, *President and CEO, Patient-Centered Primary Care Collaborative;*

Russell Phillips, MD, *Director, Center for Primary Care, Harvard University School of Medicine;*

Anita Glicken, MSW, *Executive Director, National Interprofessional Initiative on Oral Health;*

Cherae Farmer-Dixon, DDS, MSPH, *Dean, Meharry Medical College School of Dentistry*

REACTOR:
Myechia Minter-Jordan, MD, MBA*, President and CEO, CareQuest Institute for Health*

Session VI drew on the broad experience of national leaders of integration efforts to garner key insights for the path forward. Leading off the session, Ann Greiner from the Patient Centered Primary Care Collaborative (PCC) observed that **there is a policy window for bold action now**, given the emphasis upon health equity and social justice in the Biden administration, the active consideration of a dental benefit in Medicare, and a strong movement within primary care to move from fee-for-service to some form of prospective payment. **The principles that the PCC has outlined for primary care include that it should be: 1. Patient-centered, 2. Coordinated and integrated, 3. Continuous, 4. Comprehensive and equitable, 5. High value, 6. Team-based and collaborative, and 7. Accessible.** While oral health fits into all of these, as a recent PCC Compendium demonstrates, it has particular relevance for comprehensiveness of care and equity principles.[6] Ms. Greiner shared lessons she has learned on advancing health policy change: start with clear policies and a framework for people to follow; don't go it alone, but get diverse stakeholders on board; argue for equity as well as public health improvement; and advocate for investment in infrastructure and technologies (eg, EHRs).

A panel of three health professional leaders then considered their lessons learned, and ideas about ways to advance health equity and oral health integration.

Dr. Russell Phillips of the Center for Integration of Primary Care and Oral Health (CIPCOH) said the time is ripe for addressing oral health for ALL, it is an equity issue, and part of the ongoing movement for team care that is continuous, comprehensive, and coordinated. Primary care, including oral health as part of a network of resources, is important for all and is a common good, as the National Academies report recently pointed out.[7] The pandemic has made us aware of the importance of our health and access to healthcare. Ms. Anita Glicken from the National Interprofessional Initiative on Oral Health reflected on their group's work to facilitate interprofessional learning by supplying tools and resources (eg, Smiles for Life Curriculum), and cultivating oral health leaders among the health professions (for example, nurturing powerful Nursing and Physician Assisting leadership in oral health integration). Dr. Cherae Farmer-Dixon commented on the Meharry Medical College Summit and reconvenings, which have focused on the importance of collaboration and gathering the voices of multiple stakeholders to achieve health equity and integration—not just medical and dental professionals, but grass roots advocates, business leaders, political leaders and others—because all are needed to achieve change. She spoke powerfully of the need to actually mobilize for health integration and social justice to create a roadmap to accessible, affordable health care. Critically important are the community voices, she emphasized: listening to these voices empowers them.

What is the vision for health care and how will we know equity has been achieved, the panelists were asked? The panelists proposed examples of tangible outcomes:

- Edentulousness rates decrease,
- Emergency room, urgent care visits and hospitalizations are down,
- Access to care increases,
- There are fewer medical and dental health professional shortage areas, and
- Insurance claims data show an increase in prevention and maintenance services over acute care and surgical procedures.

Session VI Reactor Dr. Myechia Minter-Jordan shared her experience of profound disparities within the underserved Boston community of Roxbury, Massachusetts, and also the tremendous forward progress made in a community health center when health care was reimagined and integrated with oral and mental health. Yes, integration is difficult, she said, you have to work with administrations, with government. But she emphasized there is power in data, in partnerships, and in community. And you have to actually invest in the changes and infrastructure needed to achieve equity and advance integration. When asked by Mr. Fuccillo what might be lost if we fail to act and miss our "defining moment," she commented that outcomes will continue to be poor and not improve, and that disruptions may occur and undercut good models of care delivery. She noted that the biggest incentive is the positive health outcomes for patients.

Asked about other leaders that could advance integration in the future, Dr. Cherae Farmer-Dixon said the future depends on educating health professionals primed for oral health integration and team practice. Dr. Judith Haber agreed, but also pointed out that they must bring this new outlook to the community practice settings they join. The value of bringing together a diverse array of stakeholders, including other organizations, was reiterated, along with community activists and importantly, patients who can tell these stories. All agreed that getting organizations together and listening to community and patient voices was important. Dr Phillips emphasized that other key groups are payers, employers, and government—because payment is the bottom line.

KEY TAKE-AWAYS:

- Seek bold policy action, working with policymakers and advocates to fine tune oral health messages.
- Bring diverse stakeholders together.
- Engage in learning collaboratives.
- Draw on the data.
- Engage communities—empower community advocates by listening to them.
- Engage patients—listen to their stories; experience from the behavioral health integration movement shows these patient voices are very powerful.
- Prime the next generation of health professionals to integrate oral health and deliver team care.
- Move to prospective payment systems, and potentially include oral health in value-based models (there is a group working on this in Massachusetts, for example).
- Get out of our box, and don't talk too much among ourselves. A broad array of stakeholders will bring ideas we have never considered.

CLOSING COMMENTS:

Why us, and why now? Dr. Dolan asked in her concluding remarks. Because it is up to us, but of course, it's not just us. It's everyone who participated in this Continuum, as well as all the others who work to advance health integration. The SFG is committed to serve as a catalyst for change. As to why now, I agree it does feel like a defining moment, driven in part by the disparities highlighted by the pandemic, and by the science. And the key insight that our health system is expensive, is not really a "system" of care, and is not effectively improving health and reducing health disparities. It's not driven by common sense or our patients' needs. We can learn from the successes shared during the Continuum, from the innovations in the insurance industry and in technology advances. Certainly we've never been closer to a dental benefit in Medicare.

Mr. Ralph Fuccillo then called attention to **Healthy People 2030**, the goals and objectives for the nation set forth by the Department of Health and Human services every decade. The overarching vision for the current decade is nothing less than a society in which all can achieve their full potential for health and well-being across the life span—the intent is to attain lives free of preventable disease, disability and premature death. "I feel confident that this audience will agree that fulfillment of that vision means including oral," he concluded.

Continuum Chair Dr. Wendy Mouradian closed the Salon by noting that over the past two days many key areas of alignment have been identified, including:

- The importance of continuing to advance integrated care.
- The need for increasing diversification and diversity of the workforce.
- The need to seek value-based models, moving away from fee-for-service.
- The importance of moving upstream to address social determinants of health.
- We all want to be working to create the kind of primary care system that includes oral health.

The hope is that oral health is going to be part of mainstream health care. One of the greatest risks of losing our "defining moment" is that dentistry remains siloed and with that, health disparities persist.

I am glad that the question was raised as to what a system based on health equity would look like because having a vision is very important. One of the reasons we brought so many people together was to be able to make both the moral and the business case for integration.

But we have to get the word out! Clearly policymakers and many segments of the health professional community and the public are not as aware as they should be of the benefits of oral health, and the benefits to the bottom line, of oral health integration. It's a question of health literacy in general, and oral health literacy in particular.

So stay tuned. There will be a summary of the Salon and convenings to come. We need an integration conference every year to seize whatever opportunities present themselves for policy changes and other means to create patient-centered whole person health care that includes oral health.

Notes

1. Available at https://santafegroup.org/events/.
2. Hajishengallis G, et al. Local and systemic mechanisms linking periodontal disease and inflammatory comorbidities. *Nature Reviews Immunology*. First published online January 28, 2021.
3. The Joint Commission. New Quick Safety advisory on preventing non-ventilator hospital-acquired pneumonia. September 16, 2021.
4. The Emergency Medical Treatment and Labor Act. https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA.
5. For more on oral-systemic health. see Continuum Webinar 1, Salon Session II (www.santafegroup.or/events); and Borgnakke W, Poudel P. Perspective: Diabetes and Oral Health: Summary of Current Scientific Evidence for Why Transdisciplinary Collaboration Is Needed (*Front. Dent. Med*, 29 July 2021. https://doi.org/10.3389/fdmed.2021.709831); among other resources.
6. PCC Compendium on Oral Health. https://www.pcpcc.org/content/putting-mouth-back-body-pcc-report-calling-more-integration-oral-health-and-primary-care.
7. Implementing High Quality Healthcare. National Academies of Science, Engineering and Medicine. 2021. https://www.nationalacademies.org/our-work/implementing-high-quality-primary-care.