INSTITUTE FOR Oral Health

Oral Health in Aging America

Improving Oral Health Through Innovation in Dental Education, Care and Access

WHITEPAPER

Institute for Oral Health 2008 National Conference

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INSTITUTE FOR Oral Health

Table of Contents

Introduction

> "*Geriatric Dentistry evokes from practitioners the best of clinical, psychological, and social skills. It demands an integrated approach and advocacy for those who are most at need.*"
>
> – *Dr. Douglas Berkey*

In 2010, nearly 80 million baby-boomers will begin reaching retirement age, and this generation has grown to expect high standards in health and dental care. Their aging will bring a host of new complexities that require specialized training and multi-dimensional treatment approaches that comprehensively address their oral health, medical, and social needs –and it will happen in very large volume. Is the dental workforce prepared for this?

The general consensus is NO. Our dedicated workforce contains far too few adequately skilled practitioners to meet the demand; our delivery models do not effectively ensure access to care; and as the link between oral and systemic health is not a mainstream awareness, prevention is not a priority and our nation's aging population is suffering the costs, in all ways.

Institute for Oral Health (IOH) is committed to changing all that by bringing critical issues to the forefront, and gathering together experts from across the health care community to raise awareness and innovate solutions. Throughout 2008, IOH has spotlighted the growing concern of "**Oral Health in Aging America**", promoting relevant news and research on our website; collaborating in focus groups with leading authorities on geriatric dentistry; and motivating change through our third annual national conference held in September 2008 in Chicago, Illinois.

At this year's conference, IOH was honored to feature a number of nationally and internationally recognized experts on aging, geriatric dentistry, and health care reform who explored the challenges of access and care delivery for America's seniors, and potential solutions that could benefit both patients and providers. In meeting the needs of this aging population, dental professionals will face increasing demands on their practice, not only in the sheer volume of patients, but in the advanced skills required to effectively manage the complexities of treating elders. Medical issues, cognitive impairment, mobility constraints, and severe oral health neglect will all become key considerations in everyday dental practice. With this in mind, the 2008 IOH conference highlighted some key concerns, including:

- Educating our workforce – Currently, we have less than 3% of the required dental workforce adequately trained to address the demand and special needs of the oncoming "silver tsunami" of aging Americans. We urgently need improvements in dental education that place greater emphasis on geriatric dentistry and build incentives for specialization in elder care.

- Innovating access and delivery – We need to implement alternative strategies that extend oral health care beyond the dental office and into community sites where older adults live, and collaborative treatment approaches that partner dental professionals with other elder care specialists. On-site, collaborative care delivery reduces barriers to access and provides for a more efficient, cost-effective, and comfortable treatment experience for both the patient and the dental practitioner.

- Emphasizing oral health impact – To promote prevention and help reduce health care costs, it is imperative to dramatically increase efforts to raise awareness on the connections between oral health and systemic health. We need to emphasize the true power of regular dental care as a simple solution for preventing disease and maintaining a high quality of life.

About Institute for Oral Health

The Institute for Oral Health is dedicated to improving oral health in America by bridging the gap between research and everyday dental practice. Serving as a central resource for education and collaboration, IOH helps raise awareness on important themes of concern in oral health care today, and works to promote innovation and adoption of progressive treatment guidelines, dental plans, and delivery methods. For more information, please visit online at: www.iohwa.org.

Keynote Speaker

Erik D. Olsen, DDS
President, American Association of Retired Persons; Former President of AARP Arizona; Former President and CEO of Delta Dental of California

Healthcare Reform: Now is the Time

Dr. Erik Olsen has held a lifelong interest in providing quality health care to every American. As a practicing dentist, and later president and CEO of Delta Dental of California, and most recently as president of the national American Association for Retired Persons (AARP) and its Arizona chapter, Dr. Olsen has been dedicated to making health care a #1 priority. At the 2008 IOH conference, he emphasized the need for health care reform, directing his focus on addressing three key questions:

1. **Why is now the time for health care reform?**
2. **How can we include oral health care?**
3. **What is the AARP's role in this?**

Why Is Now the Time for Reform?

We have all often heard that the U.S. is the only developed country without a plan for the nation's health care delivery. Furthermore, it has been 16 years since any health care reform has been put in motion. Yet the lack of quality health care available for children and young adults today will have a tremendous effect on the cost of providing health care tomorrow –in costs to taxpayers, families, and our nation at large.

Although our nation is fortunate to have the finest research, health care practitioners and hospitals in the world, our health care system is broken. As Dr. Olsen put it, it is more like a "dysfunctional patchwork", one that is not meeting the needs of most Americans. In fact, we are now seeing a number of dangerous trends converging:

- rising health care costs;
- rapidly expanding population of uninsured and inadequately insured;
- health care costs shifting to the individual;
- inefficient and poor quality care; and
- growing incidence of lifestyle-related disease.

The net result is a situation wherein health care costs are spiraling out of control, yet doing too little good for too few people. Now, with our country facing an unprecedented economic crisis, the need for health care reform is only gaining momentum and urgency. We will likely be facing a surge in the population of uninsured and under-insured, with more and more individuals and families unable to get the care they need. Now is the time for reform because we cannot afford to wait any longer.

How Can We Include Oral Health Care?

> *"It is simply not possible to have good health when you split away a vital segment of good health."*
>
> *— Dr. Erik Olsen*

Across the dental profession, it is widely accepted that oral health has a direct impact on systemic health, and increasingly, medical and dental care providers are building bridge relationships to create treatment solutions that include oral health care. Dr. Olsen cited a recent Aetna-Columbia University study in which 144, 000 insured patients found that "*increasing access to oral health care for those afflicted with diabetes, cardiovascular disease, and cerebrovascular disease reduced overall medical care costs by as much as 16%.*" Nevertheless, oral health care is still commonly seen as a separate segment of health care.

It has been easy to segment oral health care as it is expensive, provided by a separate group of practitioners, and often supported by separate insurers. Yet there is a strong case to be made to include oral health care in the mainstream health care system –and its reform– in this country. As Dr. Olsen put it, "*Start small, and the pressure to grow will be enormous.*"

> *"Is dentistry going to be represented at the table? It's really up to you. If oral health care is to be included in the mainstream of health care, the oral health community must band together and make the case of its inclusion."*
>
> *— Dr. Erik Olsen*

To illustrate this idea, Dr. Olsen shared an anecdote from his years as CEO of Delta Dental. In 1985, he had the opportunity to meet the new the Dental Director of the Pentagon, Hank Fleming. As it happens, Fleming's boss was a physician whose parents had been dentists, so he understood the value of good oral health and as such, had charged Fleming with the task of developing an oral health program for the military and their families. As Fleming had no idea how to do it, Dr. Olsen seized the opportunity to promote Delta Dental, which later helped design the program and sell it to Congress. But as the program had limited benefits, it was a bigger challenge to convince the ADA to support it. Eventually they did, it was approved by Congress and the President, and the program has since grown to be more and more effective.

How should the oral health care community move forward to get included in health care reform? Dr. Olsen emphasized the need for marketing that effectively motivates buy-in and involvement, and planning strategies that prioritize where to start and how to grow from there. The best chance for success lies in a few key essentials, including:

- Rally support across the dental profession – Get everyone behind this effort to reinforce the importance and commitment toward a unified health care system.
- Strive to get the minimal benefit at the outset – Do not shoot for the stars from the get-go, but rather, start small with the most critical elements you can realistically win. As more people (across public, private, and government sectors) recognize the benefits, momentum will advance your cause and boost your efforts.
- Develop a social marketing campaign that connects oral and systemic health – It is critical to target both the medical profession and, more importantly, the public because when they understand the serious impact poor oral health can have on their overall health (such as heart attacks and diabetes), they will demand better dental care in their health care programs.

"*To make health care work and work well, we need a bipartisan commitment to a healthier America in which people of every age and socio-economic status receive top-quality care, along with health promotion and disease prevention*."

– Dr. Erik Olsen

What is the AARP's Role in This?

The AARP is dedicated to supporting causes of critical concern and providing resources to help Americans age 50 and over. According to Dr. Olsen, the AARP has placed health care reform at the top of their agenda, along with lifetime financial security. As two-thirds of Americans over 65 rely on income from Social Security, there needs to be substantial changes in our health care and financial systems in order to effectively provide for the needs of our aging population.

In taking on these monumental tasks, the AARP realized that in order to demand action, they would need to build a powerful consortium of national organizations and influential thought leaders. In January 2007, the AARP launched a nationwide initiative entitled "Divided We Fall", which partners the AARP with the Business Roundtable (which represents 40-50 top corporations in America), the National Federation of Independent Business (representing small businesses), and the Service Employees International Union. While each organization has different plans and opinions, together they share a unified commitment to developing fair and reasonable options that achieve the goal of "*providing all Americans with access to affordable, quality health care and peace of mind about their long-term financial security*."

As they continue to push forward, this coalition has promoted their initiative heavily throughout the current election primaries, and Dr. Olsen confirmed that both presidential candidates have pledged to follow through on the Divided We Fail initiative. In fact, the coalition intends to demand that by spring 2009, the new president comes forward with a new health care plan.

Key Elements of AARP's Health Care Reform

In their proposal for health care reform, the AARP and their coalition partners have defined the critical elements that they insist must be part of any new national health care plan, which include the following:

- Increase patient-centered focus – Our broken health care system too often centers focus on hospitals or providers. We need a system in which the priority is focus on the patient.
- Focus on prevention – To effectively control costs and improve the quality of care, it is essential to promote healthier lifestyles and strengthen health education in schools and communities.

"The most important element in the AARP's proposal for reform:

Guaranteed access to health care for every person.

If you don't have that, you don't have a health care system."

— Dr. Erik Olsen

- Improve quality and value – As another cost-saving strategy, we need to increase the quality of care and value for money spent, defining standards and metrics for measuring quality.

  [NOTE: In 2009, IOH focuses on "**Defining Quality in Oral Health Care**" – To learn more, please visit: www.iohwa.org.]

- Reduce wasteful spending – We need to cut costs by streamlining administrative and billing processes; forcing a reduction in costs for medical equipment; and promoting less costly solutions for prescription drugs such as the use of generics and sourcing from competitive international markets.

- Advance information technology – Develop systems that better support providers and patients with electronic recordkeeping and treatment information that is consistent, accurate, and easy for everyone to understand. Financial incentives could be available to reward providers for high quality improvements and exceptional care.

- Restructure the malpractice process – We need to build more fairness and patient-focus into the malpractice process with a system in which expert panels administer malpractice claims to ensure outcomes that favor the patient, instead of doctors and lawyers.

- Expand choices for long term care – Rather than our current "*institutional-biased system*", we need one that "*promotes independence and dignity*" for older adults, including more choices for care in their own home. Health care for our nation's seniors should not be focused on what people can afford, but what they really need and what will support a good quality of life as they grow older.

- Resolve the shortage of providers – It is imperative to address our nation's severe shortage in primary care physicians, nurses, dental practitioners, and other care providers. The proposal promotes greater support for education and reform of work scope, but most importantly, amendment of reimbursement policies. Taking a patient-centered approach, we should move toward a value-based reimbursement system, one which places higher emphasis on research to identify the best care strategies for given situations, enabling providers to deliver more efficient and effective forms of care, for which they would be rewarded accordingly. This model could drive incentive to increase our population of primary care providers.

How You Can Get Involved

As a leader in health care reform, Dr. Olsen strongly encouraged everyone to join in the **Divided We Fail** initiative and become one of their "*Millions of Voices for Change*" by sharing your thoughts, ideas, or concerns on health care and lifetime financial security through their website: www.dividedwefail.org.

Featured Speakers

Stephen Shuman, DDS, MS
Associate Professor & Director, Oral Health Services for Older Adults Program, Univ. of Minnesota School of Dentistry

Riding the Age Wave: Changes & Challenges for Dental Professionals

Dr. Stephen Shuman focuses his teaching, research and clinical practice on the special challenges of geriatric oral health care. At this year's IOH conference, he provided valuable insights about our nation's growing senior population to help prepare dental professionals for complexities they may need to deal with in their practice.

What is Happening in the Senior Population Boom?

As a starting point, it is important to understand the landscape of America's older population and how it is changing rapidly. Dr. Shuman highlighted important statistics that may impact dental practice demographics, processes, and needs in the coming years:

- Dramatic increase in seniors – In 2000, America had less than 35 million older adults aged 65 to 85+, yet by 2030, that number is expected to rocket to over 70 million, largely due to aging baby boomers; 76 million people will begin reaching retirement age by 2011. (U.S. Census Bureau)

> *"While the boomers are commanding so much of our attention, we also need to be concerned about the 'old old' because they are the most rapidly growing age group. By 2050, there will be millions of people living into their 100's."*
>
> *– Dr. Stephen Shuman*

- Longer life expectancies – Though many people over 75 do not expect to live much longer, statistically U.S. life expectancies are extending. The average 70 year old might live another 15 years; an 80 year old might live another 9-10 years. As such, it is important for dental professionals to educate elderly patients about available treatment solutions and how long each will last so people can make decisions that support them better as they live on.

- The rural age boom – Statistics show rapid growth of seniors in rural communities, with numbers rising 4% in the past 20 years and likely to jump dramatically over the next 20 years. This rural population is often underserved, having far less access to dental resources skilled in geriatric care than people in urban communities, as well as less income and insurance for getting the help they need.

- Rapid growth in diversity – Studies estimate that by 2050, we may have a senior population where only 60% are the "white elderly", with the other 40% comprised of Hispanic, African American and Asian seniors. "*The term 'minority' will start to lose its meaning in this country during the coming years*," Dr. Shuman noted, adding that dental professionals will need to be skilled in providing geriatric care, but also flexible in supporting patients of diverse cultural backgrounds, including working with language interpreters.

The Unique Elderly with Common Problems

As people grow older, they become even more different from one another, each with their own set of health and lifestyle influences, behaviors, and disease exposures. While this uniqueness makes people interesting, it also makes treating them more complex, and dental professionals may need to expand their skills and facilities to provide more individualized care for their aging patients.

Nevertheless, there are problems common in the elderly that will likely impact any dental practice caring for older patients, including:

- Chronic medical conditions – A 2006 CDC study of people over 65 found that 52% of men and 54% of women have hypertension; 37% of men have chronic heart disease. These conditions could have an obvious impact on oral care, but even the high incidence of arthritis is of concern (54% of women; 43% of men) as it could affect a patient's ability to maintain their own oral hygiene or even get to the dental office. As such, providers will need to be prepared to create more personalized dental care plans that factor in these medical concerns, which can make treatment more complex and time-consuming.

- Dementia – One of the most prevalent conditions in the elderly is dementia, affecting up to 50% of adults age 85 and over, and 13% of those over 65. This amounts to an estimated societal cost of $100 billion per year. While 50% of nursing home residents have dementia, nearly 70% of those affected still live at home. (Alzheimer's Association, 2007) In either case, these elderly often have poor oral hygiene and get less dental care, forget or misplace their dentures, and can be less cooperative during treatment. As such, dental professionals need to be prepared to accommodate the special needs of these older patients.

> *"Of adults 85 years and over, 1 out of every 2 people have some cognitive impairment."*

- Multiple medications – On average, older adults take up to nine medications; it is estimated that by 2010, seniors will consume 38.5% of all drugs prescribed in the U.S. In only 11 years (1992 – 2003), there has been a 45% increase in drug utilization, and by 2010 it is expected to rise another 35% over use in 2000. Furthermore, adverse drug events occur in 20-54% of older adults. (US FDA, 2003) As such, it is becoming mission critical that dental care providers be well skilled in developing treatment solutions that safely support polymedicated patients.

- Higher caries rates – As more and more older adults are maintaining their natural dentition, the incidence of caries (root plus coronal decay) is extremely high, in fact, comparable to the crisis of cavities in children –nearly 24% annually in U.S. older adults. (Griffin, etal., JDR 83: 634-638, 2004) Dr. Shuman noted there is a common misconception even in the elder care community that adults do not get many cavities.

> *"Where is the emphasis on prevention for older adults? I hear from nursing homes, 'Why do they have to use fluoride toothpaste? Adults don't get that many cavities ...do they?'"*
>
> *– Dr. Stephen Shuman*

"*That's an educational battle because root caries is a huge problem, and it is likely to increase as we see more people retaining natural teeth and with a number of other risk factors for caries that tend to accompany advancing age.*"

As aging adults face these common medical and cognitive problems, they (or their care takers) often neglect dental care as being less important and less urgent. Thus, by the time patients see a dental professional, their oral health problems may have grown severe, and the patient's frail or complicated condition can make dental treatment very difficult. These scenarios provide a strong indicator of what today's dental care providers need to be prepared to handle.

A Crisis in Senior Dental Care Access

America is experiencing unprecedented growth in our senior population, and with people living longer and retaining their natural teeth, the need for quality geriatric dental care is only increasing. Yet an overwhelming number of older adults have neither the insurance nor income to support them in getting the care they need.

- An epidemic of uninsured – As of 2001, among adults age 65 and over, nearly 68% were uninsured; 22% were covered by private insurance; and only 7% had public coverage. Hardest hit are seniors living in rural communities where dental insurance is less available (72% rural uninsured vs. 66% urban uninsured). Private insurance numbers are slowly rising, partly due to people working longer and retaining their dental benefits instead of retiring at 65. (NHIS, 1997-8, NCHS, 2001).

- Infrequent access – In that same study, a large percentage of seniors only visited a dental provider when they perceived a need, as opposed to getting regular care. In urban communities, over 47% of seniors were episodic users, and in rural communities where access to insurance and quality dental resources is often more limited, nearly 56% saw a dentist only occasionally. This issue creates a greater problem for dental professionals as there's often a big discrepancy between what providers know older adults need in terms of dental care and what the patients think they need. Thus, too often seniors neglect to see a dentist until after a condition has deteriorated enough to really bother them –and at that point, restoration options are more limited, more complicated, and more expensive.

As seniors typically have the highest risk of oral disease, on top of other medical complications, regular dental care could make a huge difference in their oral and systemic health —so the dental industry needs to be more proactive in helping the elderly.

- Inability to afford care – Over the past 30 years, though national income levels are rising across adults 65 and over, as of 2002 we still had 40% of seniors with low or poverty level income. That represents a very substantial amount of our older population who may have little or no ability to pay for health and dental care. (U.S. Census Bureau, 2003)

- Dependency on others – Studies estimate that 43-50% of adults 65 and older will spend some time in a nursing home during the remainder of their life, and often in those facilities the attention and priority placed on oral health care is limited. As of 2004, nearly 40% of U.S. nursing homes have no contract for dental services, and dental care is one of the least used, with only 26% of residents using dental services compared to 91% using medical services. (Spillman & Lubitz, 2002; CDC/NNHS, 2004)

Utilization Trends & How Seniors Can Benefit Practice Economics

For seniors who have access to dental care, are they using it? The trends look promising: a 2004 study showed that over 66% of American adults over age 65 said they had visited a dentist. (NOHSS: BRFSS 2004) Another study taken across five states cited that, between 1988 and 1998, patient visits in this age group increased over 3.5%, with services provided and patient expenditures increasing 4%. (Meskin and Berg, JADA, 2000)

What does this mean for practice economics? While this aging population presents a host of special considerations and complexities for dental professionals, it also introduces opportunities for providers to evolve their practice, for example:

- Increase practice profitability – In elderly patients, the nature of the services they will consume and continue to need as they grow older is typically more sophisticated than with younger adults, hence, providing skilled geriatric dentistry could be a lucrative addition to one's practice.
- Market to older adults – While dental professionals often wait for their practice to "age with them", there is a market for seniors who need and want quality dental services. As such, providers should consider making their practice more accessible to older adults, perhaps marketing directly to this age group.
- Develop special needs expertise – Providers could more effectively and efficiently serve older adults already in their practice by increasing their preparation and understanding of the special needs and preferences of these patients. With baby-boomer seniors, dental professionals can expect to see more patients who have retained their natural teeth and who will want a full range of services provided on demand.

Preparing to Meet the Challenges

Dr. Shuman encouraged the dental profession to prepare for the many challenges of serving an aging society... How do we ensure access? Adequately train our workforce? Get care to rural communities? Providers need to innovate dental delivery across a wide range of long-term care scenarios; work on educating seniors and health care partners; and advance everyday dental practice to accommodate a greater spectrum of special needs so we can effectively promote better oral health care for seniors.

Judith Jones, DMD, MPH, MS
Professor and Chair, Dept of General Dentistry, Boston University School of Dental Medicine and Associate Professor of Health Services in the School of Public Health

The Cost of Care and Who Pays For It

For the 2008 IOH conference, Dr. Judith Jones brought years of experience in strategic planning and development for dental education and delivery based on patient-oriented research, particularly in long-term oral health care. Her presentation focused on the economic picture, and innovative dental plans that support both broader coverage for seniors and more effective reimbursement for geriatric dentists.

The Financial Big Picture

In adults age 65 and over, some trends look promising: over the past 30 years, use of dental care has increased from 30% to 58%. In fact, the increases are much greater in this age group than any other, in part due to changes in oral health status and the value placed on maintaining good oral health. (NCHS) However, there are a number of serious concerns that need to be considered, including:

- Low incomes – 2007 surveys show that 75% of older adults have an income less than $50,000 per year, which is not much to live on these days, especially when your medical and dental health demands greater attention.
- Exorbitant national health expenditures – As of 2005, our nation spends $2 trillion on health care, and yet dental represents less than 5% of that spending. Even so, dental care spending, at $87 billion in 2005, is already approaching $100 billion.
- Sources of provider reimbursement – Nearly 90% of medical services are reimbursed by private or public health sources, with only 10% paid out-of-pocket by patients. (Health, 2007) However, for dental services, only 56% is paid by private and public sources, with 44% paid out of pocket –which, based on the income estimates above, represents a significant hardship for older adults. (CMS, 2004).
- Health benefits literacy in older adults – An important part of improving access to care is to emphasize the importance of having seniors educate themselves on what kind of coverage they have so they can make better decisions about treatment options. Too often, they do not really understand the limitations (and advantages) in their dental plan, and that confusion interferes with the kind of care and follow-up seniors get.

It is estimated that 75% of older adults live on less than $50,000 per year; two-thirds of people over 65 rely on Social Security. Yet nearly 44% of dental care expenses are paid out of pocket due to lack of adequate insurance.

The Complexities of Eliminating "The-Uninsured"

According to the Institute of Medicine (IOM), oral health care coverage should be universal, continuous, affordable, and promote well being in all individuals and families. Sounds great, but it is not that simple. To achieve these goals, there are many variables that impact the overall financial picture, including:

- Universal care – What type of coverage is it? Are individuals required to obtain coverage and must employers offer it? Who is eligible and are there subsidies for low income elders?

- Continuous care – Is re-enrollment required and how often? What happens when people change jobs or income levels? Does coverage continue into retirement?

- Affordable care – This goal is especially complex... What are the premiums, co-payments and deductibles? Do they vary based on income, health status, and living facility? Do seniors have to pay and are there subsidies for them? In making this model sustainable, how realistic are estimates of use and costs, and what happens in unstable economic times? Are use and cost controls built in? Do benefits plans encourage simplistic or cost-effective services?

- Care that promotes well being – Is the care high quality, safe and effective, efficient and patient-centered? Are preventive services covered and encouraged? Are there incentives to avoid overuse of services?

It is complicated, not just financially, but also logistically, politically, and ethically. Yet there are positive payoffs for both patients and providers, so how do we move toward the goal of providing dental care for everyone – in particular, older adults? To start innovating change, Dr. Jones enlisted dental industry experts to envision the new health plan scenarios, some of which are detailed as follows.

Solution Scenario 1: State-wide Elder's Oral Health Insurance Program

Using the federally-funded SCHIP (State Children's Health Insurance Program) as a model, a potential solution was proposed that would support seniors. Highlights include:

- Plan sponsorship & development – Funded as a federal state program; developed from legislation with plans varying within and between states; and optional for states to implement.

- Who is covered and who pays? – Targets seniors below and up to 125% of the poverty level, which, as of 2002, would be 6 million people. As this age group has few resources to pay, federal and state funding would be needed, though small premiums and minimal co-pays could be charged to the "near-poor".

- Level of coverage – As the senior population will likely have greater untreated needs, the level of care covered will have a major effect on costs. Ideally, the plan would cover diagnostic and preventive services, basic restorative and emergency services.

This plan is potentially very viable; for example, at 40% utilization funded at $300 per user/year, premiums could be as low as $10 per month. It would also allow seniors the flexibility to tap other financial sources to help them get the care they need, rather than being restricted by coverage limitations such as those under Medicaid. And, by distributing cost across federal and state resources, more practitioners might be encouraged to devote time to senior patients. The downside is that enrollment and eligibility complications could increase costs; and by separating it from medical coverage, "*it perpetuates the misperception that oral health care is not a mainstream part of health care.*"

Solution Scenario 2: Prepaid Insurance Plans

Another potential solution considers a program whereby working individuals could prepay into an insurance plan and later use the benefits after retirement. Highlights include:

- Plan sponsorship & development – Funded by major insurance plans or financial institutions such as Washington Dental Service; voluntary for groups and employers.
- Who is covered and who pays? – Currently insured individuals could pay into the plan, with no cost after retirement. Though not configured with subsidies, they could be integrated. Premiums/deductibles/co-payments would follow the typical 100/80/50 or 100/100/50 models.
- Plan management and sustainability – Program could be administered efficiently by expert organizations, with usage and cost controls built in, similar to standard coverage plans.

A great advantage to this program is it could be widely available, easy to administer, and help people plan (while at the peak of their earning potential) for a future on a fixed income, and remove some access to care barriers in old age. However, the plan has a limited market as it requires an additional investment from individuals.

Worth noting is that this program was developed by Dr. Max Anderson while he served as Dental Director and vice president at Washington Dental Service (WDS), a position now held by IOH's Dr. Ron Inge. Although in the past WDS did not initiate the program, Dr. Inge agreed it's worth pursuing again.

Solution Scenario 3: Medicare-supported Dental Care

- PPO – Yet another potential solution looks at how Medicare could be adapted to better support dental care for seniors. Key benefits of a PPO would include services at reasonable cost with a wide selection of providers; and special options and subsidies for low income people.
- Health Savings Accounts (HSA) – Elder-specialized HSA's (tax-free savings accounts specifically used for health care expenses) could be adapted to support high out-of-pocket expenses, with special options for low income persons and supplemental coverage from Medicare.

Solution Scenario 4: Voluntary, Self-Insured Dental Programs

As most dental insurance stops at retirement, Delta Dental developed solutions for targeted groups that provide coverage after retirement. One example is the TRICARE Retiree Dental Program, developed for retired military and their families. The plan, which provides good coverage for restorative and other services from a wide selection of providers. The drawback to the program is that it is limited to this select group.

The Best Solution is a "Mosaic" of Solutions

While there is no one perfect plan, there are many we can draw from in trying to create a comprehensive solution that works for everyone. As Dr. Jones emphasized in closing:

> *"It's going to take a mosaic of reimbursement mechanisms to get care to all elders who want care. The percent of the elder population that's going to want care is only going to increase dramatically with the aging of the boomers. There's also the poor and near-poor who need more assistance. It's incumbent on society to think of those who are less fortunate and include them in a plan that makes sense."*

Douglas Berkey, DMD, MPH, MS

Professor, University of Colorado Denver School of Dental Medicine; Dental Director, Total Longterm Care of Colorado; Past President of the Geriatric Oral Research Group of the International Association for Dental Research; Past Chair of the Gerontology and Geriatrics Education Section, American Dental Education Association

Retooling Geriatric Dentistry Workforce and Education – Building a Change Agenda

Dr. Douglas Berkey has dedicated his dental career to understanding the challenges and special needs of older patients. He brought his enthusiasm to the 2008 IOH conference, encouraging that "*there's strength in numbers*" and that progress that can be made when everyone in the health care industry works together to improve access, education, and quality for dental care that better serves America's seniors.

Along with his colleagues in geriatric dentistry, Dr. Berkey holds serious concern over the lack of dental professionals available and adequately trained to care for the growing boom of aging adults. He addressed the challenges facing the dental profession and promoted numerous solutions that can help motivate promising changes.

A Looming Crisis in Dental Education & Workforce

Future-of-dentistry reports –including those from the ADA, Institute of Medicine, and the Surgeon General– confirm that the dental workforce is not adequately prepared to meet the current and future health needs of older adults. The problem starts with education: there is too little instruction, funding, and motivated interest in pursuing special training in geriatric dentistry. As a result, the workforce available to adequately treat older patients does not even come close to what is needed to support the rising tide of seniors in America. Dr. Berkey spotlighted data that confirms the urgent need for more in-depth training in geriatric dentistry:

- Narrow clinical focus in dental schools – In clinical care experiences, most dental schools focus on younger and healthier seniors, those easier to treat. "*Students are not prepared to identify, prioritize, and treat the oral health needs of the 'older old', the frail and functionally dependent elderly*."
- Limited geriatric instruction – Consistently over the past 12 years, American Dental Education Association (ADEA) dental school surveys have shown that about 17-22% of students agreed their instruction devoted too little time on geriatric dentistry. Furthermore, among graduating seniors, a 2005 ADEA survey showed that only 18% felt prepared to practice on geriatric patients and only about 32% felt prepared to treat the disabled. Consider that, when combined, these numbers tell us that a significant number of new dentists entering the workforce may be unprepared to treat a typical elderly person who has complex health issues and functional or cognitive difficulties.
- Minimal budget for postdoctoral training – The 2006 federal budget removed all funding support for postdoctoral interdisciplinary training in geriatric dentistry. However, in 2007, funding was reestablished for 10 programs, about five of which currently running with residents in training.

By 2005, to meet the demand for services, we needed an estimated 7,000 practitioners specially trained in geriatric dentistry. We had about 200. That is less than 3% of what our country needs to care for our aging population.

- Inadequate new workforce to meet demand – In 1987, it was estimated that by the year 2000, we would need at least 6,000 practitioners with "substantial training" in geriatric dentistry, and 10,000 by 2020. (DHHS, 1987) In reality, by 2005, only about 200 dentists had received postdoctoral training in geriatric dentistry compared with the projected need of about 7, 000 skilled practitioners. Though experts now believe the original projections were a bit inflated, Dr. Berkey confirms, "we are still falling woefully short of what is needed to meet the demand."

- Dwindling existing workforce – It is estimated that in the next 10-20 years, the majority of dental professionals trained in geriatric dentistry may be retiring, further widening the gap between our country's workforce needs and what we actually have available to serve the oncoming boom in our senior population. (ADA Report of the Task Force on Elder Care, 2006)

Alarming Parallels in Geriatric Medicine

The medical profession is seeing a similar trend in the lack of education on geriatric needs, as well as a lack of interest in practitioners to specialize in geriatrics. Over 16,000 people graduate each year from medical school, yet only 2% seek careers in geriatrics. This shortage in providers may result in a medical care crisis as well.

Although the trend in dental and medical education shows an increasing lack of interest in geriatrics, Dr. Berkey believes this can be turned around with a more proactive approach. He works hard to promote solutions that can better educate and motivate new and existing practitioners, transforming them into a workforce both prepared and eager to address the special needs of geriatric dental patients.

As of 2005, there was only one geriatric specialist per 2,500 patients aged 75 and older. By 2030, it is estimated there will be only one specialist per 3,600 elderly patients.

--Alliance for Aging Research

Evaluating Predoctoral Geriatric Dental Education

To begin building a change agenda for "retooling" dental education, Dr. Berkey researched what the system really needs vs. where we are now. As a framework, he referenced a 1995 report from the Bureau of Health Professionals that outlined key areas of focus, and his findings were as follows:

- Develop, implement, and evaluate clinical competencies and education standards

  In predoctoral geriatric education, we are still lacking a formalized set of endorsed competencies and standards. A recent article confirmed that across medicine, dentistry, nursing, and pharmacology, only nursing and pharmacology have accredited standards for geriatrics. (Mezey, etal. JAGS, 2008) In an effort to define competencies, a 2001 study surveyed 50 practicing dentists on competencies required for geriatric dentistry that should be included in predoctoral curriculum. Of the many topics evaluated, the findings emphasized 45 important areas in geriatric dentistry that should be included in dental education. Furthermore, it noted that competency in geriatrics requires knowledge and skills from a broad range of procedure-based topics. (Dolan and Lauer, 2001)

  This wide diversity of education required for geriatric competency represents a considerable challenge for curriculum planners, but it also introduces opportunities for developing innovative approaches that might serve to motivate interest in dental students.

- Dental school accreditation standards will require geriatric education

  Some progress is being made in this area. In 2006, the Commission on Dental Accreditation (CODA) increased their standards to include proficiency requirements in caring for special needs patients, which although not specific to geriatrics, certainly encompasses this population. CODA cited that, "*Graduates must be competent in assessing the treatment needs of those patients with medical, physical, psychological, or social situations that make it necessary to modify normal dental routines*."

- Establish core competencies in national boards and regional licensure board exams

  Unfortunately, nothing substantial has been done in board exams, in regards to geriatrics.

- Employ CQI to improve dental education and dental care

  Dr. Berkey noted, "*We need to be more sophisticated in how we can best teach this broad range of 45 topics that span all sorts of disciplines, and that are sometimes hard to teach*."

Strategies to Improve Teaching

The next step in a proactive approach for retooling dental education is to look at ways to innovate teaching to help students better assimilate the wide range of knowledge and skills necessary to geriatric dentistry. Dr. Berkey looked at a number of strategies, including:

- Understand the landscape – A St. Louis University article on ways to "teaching improvement" noted important challenges educators face, namely that, with geriatrics, they must teach knowledge and skills, but also behaviors and beliefs, a vast array of information that may be difficult or impossible for students to learn all at once. As such, to better support students, teachers need to determine which teaching methods will have the greatest impact on learning different types of content. (Aging Successfully, Vol. VX, Vol. 1)

- Individualize teaching – Educators can better reinforce the learning of concepts and skills by individualizing their instruction with more interactive teaching experiences, and more attention to the different learning styles of each student as well as the different levels of complexity across various topics. (Brown & Herbranson, 2007)

- Increase postdoctoral training – We need to increase the number of postdoctoral training programs, especially those with emphasis on advanced geriatric dentistry. The ADA evangelized this as well in their 2006 Task Force Report on Elder Care.

- Promote faculty training opportunities – With new training programs comes the need for qualified educators and we need incentives and programs to get them involved. A similar effort in pediatric dentistry was successful by developing a "Master Clinician" program in which current or retired practitioners became faculty members, bringing their knowledge to a new generation of dentists. To motivate geriatric dentistry mentors, we might consider improving opportunities for fellowships and diplomats and weighing the benefits of creating specialty status for geriatric/special needs dentistry.

- Advance ongoing learning – To encourage practitioners to keep evolving their knowledge throughout the life of their practice, it is important to increase awareness of alternative learning opportunities such as web-based resources (e.g., www.dentaltown.com), many of which offer CE credit.

Innovative Teaching Environments: A Case Study

Dr. Berkey is a leading geriatric dentistry educator and mentor at Colorado's Total Longterm Care facility, which serves the frail elderly. At the facility, Berkey and his students partner with an integrated team of providers who manage all facets of elder care, customized to individual patient needs. He notes it is "*a rich setting for teaching*" as it exposes students to interdisciplinary planning and complex care considerations, while encompassing an overall philosophy of honoring our seniors.

Some of the exceptional benefits of this learning environment include:

- Enhanced clinical decision making skills -- This unique, multi-dimensional training helps students sharpen their effectiveness in clinical decision making as they learn to assess diverse factors such as patient expectations, ability to maintain oral health, impact on quality of life, and capacity to tolerate the stress of treatment –just a few of the key considerations that come into play when providing oral health care to the "old old".

- Increased comfort with the elderly – Learning within this elder care facility helps students grow comfortable in communicating and working with the frail elderly, and develop the agility to manage a wide range of potentially difficult situations, while ensuring their patients stay comfortable.

- Raised awareness of social factors – Students also gain valuable insights in their partnership with social workers as part of the elder care team. This relationship provides a window into the more personal concerns patients often have that they may not communicate to their dental practitioner, concerns that may influence treatment strategies or even how or what the dentist communicates to the patient.

- Added supplemental elder care skills – In addition to clinical skills, students also gain experience in managing difficult tasks that are "*part of the everyday delivery of care with frail patients*" such as chair transfers, restraints, and handling patients with cognitive difficulties.

In conclusion, while Dr. Berkey recognizes this facility represents a rare learning environment, he believes it can serve as a powerful model for innovating geriatric dentistry education, inspiring a new generation of practitioners to focus on special needs care for our nation's elderly.

Michael Helgeson, DDS

Co-Founder and CEO of Apple Tree Dental, Minnesota; Past President, Special Care Dentistry Association; Immediate Past President, American Society for Geriatric Dentistry; Clinical Assistant Professor, University of Minnesota, School of Dentistry

Community Collaborative Practice: Delivering Oral Health Services to Seniors

Dr. Michael Helgeson has dedicated his career to bringing quality dental care to underserved populations including those who cannot afford or access treatment such as the sick, disabled and elderly. As co-founder of Apple Tree Dental, he has helped provide services and develop innovative delivery systems to treat over 60,000 people, including 30,000 in nursing and assisted living facilities. At the 2008 IOH national conference, Dr. Helgeson highlighted proactive strategies that address challenges in dental care delivery and better meet the access and care needs of elderly patients.

Start with an Ounce of Prevention

With our nation's total population at nearly 300 million people, studies show that nearly 30% of Americans (82 million) are underserved, often neglecting dental care due to economic or medical difficulties. 47 million people are uninsured, and even more are underinsured. Yet every dental professional can start making a difference by raising community awareness on preventive solutions.

As an example, Dr. Helgeson cited a study from the University of Buffalo in New York that established a direct link between oral health and potentially fatal pneumonia in nursing home patients; DNA evidence showed the majority of patients often developed pneumonia as a result of dental plaque. In response, Dr. Helgeson's clinics have promoted educational materials that encourage nursing homes to help patients brush their teeth and dentures to reduce the risk of systemic diseases.

A Look at the Need

22 million Americans are unable to get the dental care they need. This does not include an unreported need in institutionalized elders.

-- Nat'l Access to Care Survey

87% of nursing home residents never received dental care.

-- Nat'l Nursing Home Survey

Why Early Detection Often Fails with the Elderly

A key to improving dental care for aging adults is to focus on early warning signs of oral disease, and reaching patients before problems arise. Yet the "early warning system" often fails with older people because as teeth age, the nerves become less sensitive and thus, the patient may not realize there is a problem until it becomes painful. At that point, it is likely that both the oral disease and accompanying risks to systemic health have grown more severe and treatment options more limited.

As such, it is essential to promote regular dental examinations for older adults to help detect and treat problems at the earliest stage possible in order to reduce health risks as well as costs.

Improving Access with a Collaborative Delivery System

Throughout his career, Dr. Helgeson has been inspired by the model set by Minnesota's famous Mayo Clinic, whose philosophy is "to practice medicine as an integrated team of compassionate, multi-disciplinary physicians, scientists and health professionals who are focused on the needs of patients." Despite the groundbreaking example of the Mayo, the practice of dentistry has remained fairly insular for the past 100 years; typically an individual patient visits an individual doctor in a private office. Yet to effectively solve the problem of access and use for underserved populations, a new system of care has been developed that extends the reach of dentistry beyond the private dental office. Community Collaborative Practice introduces an innovative model and new strategies for getting private offices into teamwork with other organizations and individuals.

In Community Collaborative Practice (CCP), the focus is to develop three-way partnerships between private dental practices, community partners such as nursing homes, senior assisted living, and schools, and third-party oral health teams who mediate care between the community site and the dental office.

Community Collaborative Practice strives to deliver oral health services where people live, work, go to school, or receive other health and social services.

For nearly 20 years, Apple Tree Dental, a CCP co-founded by Dr. Helgeson, has been successful in meeting elder care needs throughout Minnesota. Particularly effective are their state-of-the-art mobile units, which can bring a sophisticated mini-clinic to any location, where dental practitioners can partner with the facility's care takers to best serve each patient. For example, when treating nursing home residents, geriatric dentists are afforded far greater flexibility in how they can provide care by using their own equipment while having access to the patient's physical therapist and favorite nurse, as well as their complete medical chart, drugs and specialized toileting facilities. This approach is also significantly easier on the patients, for whom an excursion to a dental office can be a traumatic, lengthy event that often leaves them tired, agitated, or disoriented.

The Two Best Reasons to Deliver On-Site Care

Dr. Helgeson emphasized two key benefits gained through providing care where elders live:

1. All their other caregivers and resources are there, and those people have knowledge about the patients that the dental practitioners would never know or ever have access to back at the dental office.

2. Providers enjoy a flexible day because all patients are right there, and they can devote as much or as little time as needed with each individual. Additionally, having all patients on-site means zero downtime for missed appointments, which means this model also benefits practitioners on an economic and efficiency level as well.

Breaking Barriers to Use with Proactive Delivery

To ensure our older population gets the oral health care they need, we need to understand a few key essentials, namely, what is the scope of need across our communities, what are the barriers to access, and how can we remove them?

To evaluate the scope of community need, it is important to look at the spectrum of care delivery that exists. For example:

- No care – Unfortunately, this scenario is typical for many older adults around the country, especially those in nursing facilities. With no dental care, chronic infections go unaddressed, leading to other health complications, higher costs, disabilities, and even death.
- Sporadic care –Also referred to as the "health fair" approach, in this case a few people get care on a sporadic basis, and often only when they perceive an urgent need. It is not effective in helping people fully restore and sustain good oral health.
- Primary care – In this scenario, care is delivered as an ongoing, year-round source of education, prevention, assessment and triage, and restorative care to get people back to health –the approach that Apple Tree Dental is designed to deliver.

Even when dental care is available, older adults often do not access it, primarily due to lack of knowledge, mobility, or finances. As such, the Community Collaborative Practice (CCP) model successfully overcomes these common challenges with the following solutions:

- Early education and prevention – As people often lack the knowledge to seek care before problems arise, CCP proactively reaches out to provide education and preventive services in partnership with community settings such as nursing homes and schools.
- On-site special needs care – The health status of older adults often limits their ability to travel to dental clinics, which may not be prepared to handle their special needs. As such, CCP delivers care in patient home environments, in collaboration with other health and social services providers. This approach increases patient comfort and ensures they get care, while often reducing the difficulty, time and cost of providing dental services for them.
- Financial resources – Often the elderly (or those with special needs) cannot afford to pay for care, and as a non-profit organization, CCP is able to tap financial and in-kind resources from across the community including health care, social services, government and philanthropists.

New Opportunities in a New Models

Apple Tree Dental strives to provide year-round primary care at every site they serve, and does so with an ongoing, systemic team approach and formal agreement that identifies everyone's roles and the important standards (medical, regulatory, etc.) relevant for each facility. With this collaborative approach comes opportunities for all of the dental team members to expand their scope of responsibility and contribution to the success of oral health care delivery.

For example, beyond providing services on-site or through teledentistry, dentists may also serve as Dental Directors, who help manage the process by ensuring everyone at the client site receives oral health care, as well as collaborating with team partners and facilitating dentist-patient relationships. Hygienists also enjoy an expanded role, serving as front-line "Oral Health Practitioners" who provide education, prevention, assessment and triaged referrals (in fact, hygienists can provide these additional services with the support of Minnesota legislation for Collaborative Practice). Even dental assistants take on an additional role as "Care Coordinators," communicating with families, transportation companies, whatever is needed to facilitate successful care delivery for a given patient.

Increasing Effectiveness with Phased Care for Elders

To ensure the most effective dental care delivery at on-site locations such as nursing facilities, Apple Tree Dental uses a program for managing specific types of care in phases over time, including:

- I – Oral Health Education – At patient admission, re-admission (e.g., after hospitalization), and annually, an Oral Health Practitioner educates elders and their caregivers, and conducts assessments. This consistency ensures every patient gets screened and educated about their oral health.
- II – Prevention & Daily Oral Care Planning – Support of proactive dental care such as fluoride varnishes and consistent daily maintenance. In turn, facility care takers update patient records to reflect their daily oral care plan.
- III – Minimum Data Set Assessment – Screening and assessment system to monitor patient oral health and nutritional status.
- IV – Elders with Disease Identified – The first three phases provide valuable information that helps dental providers triage the urgency of care across all patients. Practitioners then coordinate with all related care partners to provide the necessary restorative services and treatment plans.
- V – Teledentistry Exams & Followup – To dramatically increase productivity and cost-efficiency, Apple Tree will be providing teledentistry assessments for every nursing home patient before they even visit the site. In this way, they can manage in advance the efforts of prioritizing patients, coordinating with family for treatment consent, gathering medical history, and so on – ensuring that the first day practitioners arrive on site, they can provide treatment that same day. This approach can save considerable costs as it makes the most productive use of the dentist's on-site time.

Innovating Quality Through Collaboration

Apple Tree Dental and their patients truly benefit from the teamwork of the Community Collaborative Practice model. Receiving skilled help in managing elder patients with frailties, disabilities, or cognitive difficulties helps dental care providers deliver a higher quality of care, more efficiently and cost-effectively.

For over 20 years, Apple Tree Dental has used this model to serve nearly 60,000 people in need. Additionally, they have remained strong advocates for education, research, and policy change in partnership with the ADA, Public Health organizations and others, and have been instrumental in helping other organizations replicate Apple Tree programs in communities around the country.

For more information, please visit: www.appletreedental.org.

Linda Niessen, DMD
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Oral-Systemic Health Linkages

As a professor at Baylor College of Dentistry and a recognized lecturer, author, and radio host, Dr. Linda Niessen has been strongly committed to educating both dental professionals and the public on important issues of oral health and aging, including preventive dentistry for older adults and providing dental care for medically complex patients.

For the 2008 IOH conference, Dr. Niessen focused on the critical connections between oral health and systemic health, and began by emphasizing the importance of having dental professionals positioned at the forefront of health care along with the medical community, noting,

> *"To our medical and nursing colleagues, the mouth is a black box. They don't have a clue what they are looking at. We are the only people who have the expertise in understanding what's in those four cubic inches, what's going on, and how it contributes to the rest of the body."*

Truly passionate about this topic, Dr. Niessen centered on a few key themes relating to the oral-systemic health linkages, including:

- The role oral inflammation plays in systemic diseases
- The effects of common medical conditions and medications on oral health and oral health care
- The importance of raising awareness about the oral-systemic relationship

Making the Connection: Oral Inflammation & Systemic Disease

For dental professionals, one of the greatest benefits in advancing molecular biology is that it is confirming that the mouth really is connected to the rest of the body. "*It is making that link clearer and clearer, having molecular markers and understanding the pathways of inflammation, we can see the effects of oral infection on other target organs.*" Practitioners will find these linkages readily apparent when caring for older adults, the population that most commonly has chronic diseases. Dr. Niessen noted that, traditionally, dental providers have seen patients when they are well enough to visit the office, having little interaction with the medical health care system; but treating older adults changes all that. Now, practitioners will be required to interact with the medical care system at a much higher level than ever before.

The Internet is playing a role as well. With immediate access to a vast array of health care information, patients are now arriving at the dental office with news and questions about their oral and systemic health. This rapid growth of information exchange opens up valuable opportunities for providers to promote prevention and more proactive approaches to oral health care.

Preventing oral disease is more critical than ever when addressing the needs of an aging population –it is a pivotal part of chronic disease management. Emphasizing the value we place on a patient's overall health is a compelling message, especially for elder adults in their 80's and 90's.

"Do not underestimate the power of your preventive care plan with older people. By valuing prevention, you are saying to people, 'I value your future, regardless of how long it is.'"
– Dr. Linda Niessen

Managing Conditions: Medical Health vs. Oral Health

In introducing some of the principles addressed in geriatric medicine, such as age-related changes and diseases, Dr. Niessen noted that a key factor is multiple pathologies. Many older adults come to the dental office already plagued with a plethora of medical conditions such as heart disease, hypertension, diabetes, and arthritis, which means providers need to be prepared for a more time-consuming intake process to understand the full scope of patient medical history and medications. Additionally, with elderly patients, it is not uncommon to encounter a mouthful of dental history, with many disparate restorations from over the years, and that adds a level of complexity as well.

To understand the landscape, Dr. Niessen pointed out the primary chronic diseases that aging adults either die from or go on living with, conditions which have a big influence on how we can provide oral health care for elderly patients.

- Top 5 Causes of Death – Heart disease, cancer, stroke, Alzheimer's, and respiratory disease.
- Top 5 Chronic Diseases – Arthritis, hypertension, heart disease, hearing impairments, and cataracts.

Managing Heart Disease

As an example, Dr. Niessen provided an in-depth look at heart disease, with best practices for how dental professionals can help manage the condition by taking a more comprehensive, systemic approach to oral health care, including:

- Track all forms of heart disease – In older adults, cardiovascular disease can manifest as many conditions such as hypertension, congestive heart failure, myocardial infarctions, atrial fibrillation, conduction system defects, and valvular heart disease, among others. As such, it is important for dental professionals to ensure their medical history form lists all the various forms of heart disease and medications commonly used to manage them. Too often, medical history forms capture only whether a patient has "heart disease", but this does not tell us enough; we need to be more specific.
- Learn as many specifics as possible – As some patients are unable to explain the nature of their heart disease, providers can often figure it out by the medications the patient is taking. Are they taking beta blockers? Nitroglycerine? Aspirin? Do they have a pacemaker? A prosthetic valve? In older patients who have "heart disease", these are issues that dental professionals will need to manage as part of their dental treatment.

- Be interactive and proactive with physicians – In caring for aging patients, oral health providers now play a more important role in the development and management of heart disease. When a physician diagnoses cardiovascular disease, we need to interact with them to ensure that oral health care is part of the patient's treatment plan. Conversely, when we see an onset of periodontal disease in an older patient, we should alert their physician so they can track potential medical repercussions. Furthermore, a good practice is to take patient's blood pressure at every visit and check on the status of all their medications.

Dr. Neissen emphasized the greatest concern for patients with prosthetic cardiac valves, highlighting an article of "Guidelines from the American Heart Association" that stated, "*Maintenance of optimal oral health and hygiene may reduce incidence of bacteremia from daily activities and may be more important than prophylactic antibiotics for a dental procedure to reduce the risk of infective endocarditis.*" (Wilson, etal., JADA, June 2007) As she put it, this data indicates "in red neon lights" that good oral health should be an essential part of the treatment plan for any patient with a prosthetic cardiac valve.

Managing Stroke

The third most common cause of death, cerebrovascular accidents –"stroke"– often affects older adults, with 500,000 new cases every year. Strokes typically manifest in a loss of motor function on one side of the body and may include cognitive impairment. A 2004 study reported a 400% increase in stroke risk associated with periodontitis, though no connection between stroke and caries, an indicator that oral inflammation plays a key role in activating the condition. (Grau AJ, Becher H, Ziegler CM etal, 2004) It is also strongly suggests the need for providers to promote regular oral health care to help prevent and carefully track any incidence of periodontal disease.

Stroke patients bring a series of new complications into the dental practice. Providers need to be ready to manage various scenarios, including:

- Be prepared for mobility complications – The loss of motor function caused by strokes makes it more difficult for patients to even get to the dental office; they will need help with transfers in and out of the dental chair; and they may have difficulties in managing their own oral hygiene or even communicating.

- Collect in-depth data on their condition – It is important that oral health care factor in conditions and medications common to stroke patients, such as use of anti-coagulants and anti-convulsants that can cause gingival overgrowth. Some patients have severe gum inflammation and bleeding, which nurses or even family may resist dealing with, so for those patients, oral health deteriorates rapidly. It is important for dental professionals to step in and manage the condition, treating to encourage the re-growth of healthy tissue, and making it easier for other care givers to regularly maintain that patient's oral hygiene.

Managing Diabetes

We hear a lot about the epidemic rise of Type II diabetes in America, and considerable research exists connecting diabetes with periodontal disease. Diabetics have an increased risk of infection, yet data shows that when they have their periodontal infection treated, their insulin requirements decrease. It is also likely that other complications in their systemic health can be prevented or more easily managed with regular oral health care.

Dental professionals need to be proactive in partnering with physicians to ensure that maintaining good oral health is an integral part of any treatment plan for people with diabetes. In fact, Dr. Niessen believes that "*diabetes is the poster disease for reconnecting reimbursement for oral care with medical care*." Yet, typically, management of diabetic patients focuses solely on systemic issues, and pays little attention to periodontal infections.

> *"It is a system that is broken and we need to figure out how to include this segment of the body with the medical care."*
>
> *– Dr. Linda Niessen*

[NOTE: See also the Institute for Oral Health 2007 conference whitepaper, which focused on diabetes and periodontal disease.]

Managing Osteoporosis

Both women and men suffer from osteoporosis, and treatments range from calcium and vitamin D supplements to more aggressive treatments such as bisphosphonates (e.g., Fosamax, Aredia, Boniva), which can increase the risk of osteonecrosis of the jaw. With oral bisphosphonates, this risk is less than 1%, but with intravenous doses, the risk increases to about 10-12%. To effectively manage this condition while providing oral health care, practitioners should track a detailed medical history of the patient's medications, consult their physician, and develop a treatment plan that focuses on prevention and conserving teeth when possible.

Managing Arthritis & Joint Disease

Extremely prevalent in older adults are rheumatoid arthritis and osteoarthritis, conditions that rise from an inflammatory mechanism, and which can limit a patient's ability to manage their own oral hygiene or even get to the dental office. In addition to monitoring patient medications, it is important to carefully track their oral health and be proactive in scheduling regular dental checkups and cleanings, rather than wait for patients to come on their own.

Sometimes conditions are more severe, manifesting in degenerative joint disease. In the cases where patients undergo joint replacements, dental care requires prophylactic antibiotics for patients who have a number of other high risk factors such as radiation-induced immunosuppression, diabetes, and malnutrition.

Tracking Medications: Improving Oral Health in Polymedicated Patients

To manage these various medical conditions, patients are typically taking a host of prescription and over-the-counter drugs. Thus, dental practitioners need to understand and regularly track all of a patient's medications, which might include anti-hypertensives, diabetic and cardiac medications, anti-arthritics, anti-depressants, antacids, even vitamins.

> *"Pharmacists are your best friends because all of these drugs change. Understanding what they are and their side effects is really important. You could read pages of research, but when you want to know the real issue you should be concerned about, a pharmacist can explain it in a 30 second soundbite."*
>
> *–Dr. Linda Niessen*

Most commonly, the side effects of polymedication are bleeding and oral dryness. When there is a lack of saliva (xerostomia), there is increased risk of root caries, oral candida infection, and inflammatory fissuring.

Managing Oral Dryness

The drugs of most concern are those taken on a regular basis over a long period of time, such as antidepressants, antihypertensives, antipsychotics, and antispasmodics, all of which can cause severe oral dryness (xerostomia). As such, there are various solutions that can help stimulate saliva production or act as salivary substitutes, including:

- Hydration & gum-chewing – Encourage patients to drink liquids frequently, avoiding those with caffeine or alcohol, and/or suggest they chew gum that contains xylitol.
- Prescriptions – Medications such as oral pilocarpine or cevimeline can be effective in patients with xerostomia, particularly those with head and neck cancer.

In caring for older adults, dental professionals may see their practice evolve with an increased need to prescribe oral medicines in addition to surgical treatments.

Raising Awareness: Promoting the Oral-Systemic Connection

Certainly dental professionals are well aware of the linkages between oral health and systemic health, but we need to be more progressive in educating our health care colleagues in medicine and long-term elder care.

> *"We are the only ones who understand this really well. We need to be the champions for patients as they get older."*
>
> *–Dr. Linda Niessen*

Oral health care providers may be comfortable with risk assessment and treatment for caries, periodontal disease, and oral cancer, yet treating aging adults requires the additional component of effectively and proactively managing systemic disease. And it works both ways: just as existing medical conditions can complicate oral health treatment, oral disease can contribute to the onset of any number of systemic conditions.

Dr. Niessen promoted the following solutions to help raise awareness and improve our care delivery systems:

- Develop social marketing – The dental profession should establish campaigns to educate the public about oral-systemic health linkages. To counter the common misperception that dental practitioners may simply be trying to sell more services, an effective strategy may be to partner with other organizations such as the AARP from whom "*the message may be more compelling than when dentists say it.*"
- Increase interaction with the medical system – Dental professionals need to increase their interaction with the medical community as a critical part of caring for our aging population. Furthermore, we need to link financing and reimbursement between the oral care system and the medical care system to improve system efficiencies and potentially lower costs. For example, improving a patient's oral health could have a positive effect on their medical conditions, resulting in fewer surgical treatments needed and thus, reducing medical costs for the patient, provider, and insurer.
- Promote new dental care legislation – About 8-10 years ago, the Institute of Medicine published a report on medically necessary dental care, citing certain conditions such as lymphoma and patients with prosthetic cardiac valves. Usually these types of medical reports become legislation, yet this report never got any traction. Since that time, extensive new research has emerged, and Dr. Niessen believes it is time to broaden and champion this report in an effort to gain legislation that ensures dental care as part of the treatment for certain medical conditions.

Calls to Action

Culminating the 2008 Institute for Oral Health conference on **Oral Health in Aging America**, the speakers and the audience shared a collaborative discussion to target key takeaways and calls to action that could extend the valuable insights from the conference into the workplace and community to promote change. Overwhelmingly, discussion focused on topics of raising awareness and building relationships to really drive change in our oral health care system.

Raising Awareness

- Partnering with AARP – Regarding the suggestion that the dental industry partner with the AARP, a representative from the ADA Council on Access, Prevention, and Professional Relations announced that for August, September and October of 2008, a full page ad publicizing the ADA's Oral Longevity program will be featured in the AARP's monthly magazine, which reaches 30-40 million people. The program will also be publicized on the AARP website: www.aarp.org.

- Promoting Social Marketing – It is vitally important that the public as a whole become aware and on board with the need to address oral health care as part of their overall health care. But what are the best ways to reach people? A good way to start is to leverage the power of the Internet with compelling video promotions on sites like YouTube.com and postings in high-profile health related blogs. While these venues might not directly reach the 65 and over population, the message will likely get to their children and/or grandchildren who can share that education through the family.

- Re-energizing the Surgeon General's report – From a political perspective, many dental professionals have relied on the 2000 Surgeon General's report as rationale for developing intervention programs and campaigns to raise awareness. The report brought to the forefront the "silent epidemic of oral diseases" and highlighted the linkages between oral and system health. With data reputably established, we do not need to reinvent the wheel, but how can we bring new life to this document and make it work better for where we need to go now? It is time to reinvest in it, put money and action behind it.

"We have to get outside of our comfort zone. We have to think about what is the next level of delivery of our message and of care, and not limit ourselves to what we know. We need to allow ourselves to have an imagination about how we move forward."

– Dr. Ron Inge

- Focusing on prevention – As one participant noted, to effectively advance oral health care at large, prevention is the key. "*Dental disease is an acquired disease*." If the dental profession focused emphasis on prevention, and bringing education and care to those who need it and have not received it, we could help reduce the onset and progression of many diseases, and at the same time explore strategies that allow patients to "*maintain a level of oral wellness while we try to rehabilitate them back to full function*."

"We must utilize what we do have to propel us to what we really need... and prevention is the key."

– Conference Participant

In response, IOH Executive Director Dr. Ron Inge initiated an important call to action:

> *"The 2000 Surgeon General's report was a catalyst, and while we don't have to recreate the wheel, there needs to be an engine that drives it --and that engine is economics. Until we actually impact that economic engine, we're going to see very slow movement. Yet we have all the elements to champion this cause. It took 11 years for cholesterol to go from research to being a risk factor. That's where we are now, and the purpose of this conference is to shorten that timeframe. While many of us in dentistry understand the issue very well, health care policymakers are just starting to learn. For them to be convinced, there has to be evidence of a quantifiable value, and that's what we're working on now. That's what's going to make the wheel roll."*

Getting Insurance Companies on Board

When dental professionals have patients with co-morbities, how do they get insurance companies to pay for care? A good start is to have collaborative meetings (like the Institute for Oral Health conferences), which bring together stakeholders from every aspect of health care --including dental benefits-- to educate those who are in a position to change benefits policies. The key is to have advocates who are decision makers within the insurance companies, and promote to them as much quantifiable information as possible to enable them to initiate change.

Considering a Broader Perspective to Advance Oral Health Care

But it is not just a matter of having all the right information and influencing policymakers. It was suggested that, to ultimately succeed, the system we have may not be the right system for dealing with the big picture agenda of oral health care for all Americans. As an analogy, an old business anecdote was referenced about the days when railroads were the dominant transportation system. Eventually as they began to hear about cars and airplanes, they sought to beat that competition by developing fancier railroad cars. But they lost the battle because they remained focused on defining themselves as being in the "railroad business" as opposed to looking at the bigger picture of being in the "transportation business." If they had adopted a broader perspective on their place in the game, perhaps they would have embraced and incorporated the new ideas being developed, perhaps changing the course of transportation history.

Bringing the question back to health care, are we in the *health care delivery business* or is our business one of *improving oral health for the country*? To be the latter, it was argued that we need to be advocating outside of the dental care system, looking at new workforce models, new ways to collaborate with stakeholders outside of the dental office who can complement our efforts.

Dr. Helgeson agreed that it is important to consider both perspectives –delivering oral health vs. providing dental care– as they are fundamentally different ways of framing the issue. Dental professionals need to focus on being in the "*oral health delivery business*" as opposed to the "*access to dental care business*."

> *"There is such opportunity and we can make such a difference every single day by carrying this message and doing things a little bit differently. Teamwork is an essential part of that –we need to be part of the health care team, to think about how we join forces with all these other parties because everyone has a useful role. We have a history of thinking we can go it alone, but that history is not going to take us forward."*
>
> *– Dr. Michael Helgeson*

Dr. Niessen countered that most dental professionals do see themselves in the "*oral health business* " where the most efficient delivery system may well be the private practice of dental care. However, while it is a reasonably efficient system, the economics of it disenfranchises people –and agreeably, that is a big part of what needs to be fixed.

Putting Solutions into Action

As Institute for Oral Health works to raise awareness and share education on critical oral health issues, it calls on everyone across the health care community to promote solutions and practical recommendations that providers, insurers, and policymakers can put into action.

To learn more about Institute for Oral Health and get the latest news on upcoming events and our 2009 theme: **Defining Quality in Oral Health Care**, please visit online at www.iohwa.org.

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