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Defining Quality in Oral Health Care

Critical Issues and Innovative Solutions to Advance Quality in Dental Care Treatment and Delivery

WHITEPAPER

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Table of Contents

Introduction

> *"It's all about improving quality by design, our care design methods, to produce results that optimize the patient experience and cost across whole populations, because that's the end in mind that we're all looking for. How do we back up and do things that will get us there?"*
>
> –Dr. David Gesko

When we think of quality, we all believe we will know it when we see it. Yet quality is very context and case-specific, it can be very subjective and has many dimensions. So how do we define quality in ways that can be agreed upon by our whole profession? We need to be able to measure what works and what doesn't in terms of patient outcomes, cost-effectiveness, and provider behaviors; and we need to innovate changes based on evidence and a renewed commitment to patient-centered care.

One of the biggest challenges in our dental care system is tradition – how we have set things up. Dentistry is still a "cottage industry" with many providers operating in silos, segmented from one another and isolated from the medical community. Yet if we want to achieve a highly visible track record regarding the effectiveness and appropriateness of dental care, we need a cohesive and consistent delivery system. To get there, we need to learn from progressive models and successes already in place to provide us with the structure and measurements to validate the care we provide.

The October 2009 Institute for Oral Health Conference on "Defining Quality in Oral Health Care" helped demystify the notion of quality by exploring it on multiple levels and from multiple perspectives. This year's event featured national and international experts in dental practice and research, government healthcare policy, and strategic change management. The conference provided opportunities to understand the potential of what is possible, and explored ways to make it happen through structures, measurements, and processes that can help make quality a consistent part of our everyday work and healthcare culture. We can build upon the valuable resources already available for tracking the care we provide and why, and for measuring outcomes that help us make the business case to drive improvements in provider behavior, health plan policy, and overall patient health.

The 2009 Institute for Oral Health Conference highlighted key topics such as:

- Promoting health literacy – In order to effectively influence positive behavior changes to create a healthier public, all providers need to evangelize health literacy to educate patients and get them engaged in their health process. Anyone involved in giving care, from doctors, nurses, pharmacists, paramedics, etc. should share their knowledge in simple, user-friendly, and culturally relevant ways to teach patients how to get well and stay well.
- Overcoming resistance to change – Whether we are working on change at the practice level, within an organization, or across the profession, we have to be prepared for some resistance. It is important to have strategies and models in place to overcome the challenges, to get people on board and participating so we can leverage the momentum of the collective moving together in a new direction.
- Using evidence-based metrics to drive quality – Data talks, and it is the best way to make the case for necessary changes. The road to quality requires that providers consistently gather evidence on the care being delivered and how patients are doing as a result. From tracking the frequency of treatments and compliance with new procedures, to measuring patient outcomes across many variables and risk levels, this data is invaluable. A key tool in facilitating these measures is the

electronic dental record, which enables consistent data tracking and integration with medical care, and sets the stage for development of evidence-based clinical guidelines and systematic reviews.

- Transforming quality through safety – In the U.K., the innovative Scottish Patient Safety Programme is helping transform healthcare quality and culture by introducing simple, systematic processes to help providers improve patient safety, as well as conducting measures to track progress. The program has been hugely successful in motivating change for the good of both patients and providers. It engages healthcare professionals, gives them tools to be part of positive change, and uses measures to demonstrate the dramatic improvements.

About the 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 brings together nationally recognized experts to focus 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.

Join the Conversation!

IOH encourages everyone to get involved and share their insights and feedback about important oral health topics and healthcare reform:

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Keynote Speakers

Richard Carmona, MD, MPH, FACS

17th Surgeon General of the United States (2002-2006);Vice Chairman, Canyon Ranch; CEO, Canyon Ranch Health Division; President, Canyon Ranch Institute; Distinguished Professor, Zuckerman College of Public Health, University of Arizona

Barriers and Solutions to Improving the Public's Oral Health

Opening the 2009 Institute for Oral Health Conference was Dr. Richard Carmona, whose passion for change ignited the crowd with calls to action for advancing the quality of care on a major scale, including promoting culturally relevant "health literacy" in patients, and addressing social determinants as a key component in health outcomes and quality perceptions. As Surgeon General of the United States from 2002-2006, Dr. Carmona was "*one of dentistry's strongest advocates in attempting to achieve dental parity*," and he believes that oral health must be at the forefront of public health.

As Surgeon General, his "portfolio" of responsibilities was focused primarily on prevention preparedness, health disparities, health literacy, global health and health diplomacy. He placed a strong emphasis on addressing the needs of the nation through evidence-based metrics, which provided the necessary data that enabled him to take action and fund areas where it would really make a difference.

An Insider's Perspective on the Healthcare Crisis

Dr. Carmona began by illustrating, from his own life experience, how he learned to fully appreciate the cultural barriers and challenges that many Americans face with regard to their health care. As a child of immigrant parents, growing up in a rough, low-income urban community, he recalled dental care as something they pursued only in response to a severe problem, a last resort when pain became unbearable and home-made remedies provided no relief.

Unfortunately, those challenges still plague Americans today. We are the richest, greatest nation in the world, yet we still struggle to provide care for 50 million people, many of whom have little or no access to affordable dental care. Dr. Carmona emphasized the big picture impact of oral health on society:

> "*Think about the lost days at school; think about the parents who need to skip work (if they have a job at all) to stay home with a child in pain. Oral health has many ramifications far beyond a person's own health; it has economic and disease burden ramifications on our society. It's a very significant problem*."

Those childhood experiences played an important role in Dr. Carmona's future. In pursuing an academic and clinical career in healthcare, he built upon that early foundation, which helped him "*better understand the social determinants of health and how inextricably they are tied to health outcomes*." As a result, he firmly believes that to affect real change, it is imperative to establish policies and programs that help eradicate some of the social and economic determinants of health, so we create an environment where children can grow up healthy and adults no longer suffer from preventable chronic diseases.

Change in Social Determinants Starts with Children

Dr. Carmona highlighted the problem of meeting the national goal for "workforce diversity." He noted that, even when the government invests millions of dollars in trying to "save" kids who are aged 17 -20, often it is too late. Currently, one-third of Hispanic children drop out of high school; one-third or more African-Americans drop out; and greater still are the numbers of children impacted on Native American reservations where up to 60% of kids drop out of high school.

> "*How can we possibly achieve workforce diversity, and get dental leaders, medical leaders, engineers, scientists, if we can't get the kids through high school? No amount of money in the world is going to save that unless we can stabilize those communities. We need to take the burden off the children to survive every day, and afford them the opportunities to appreciate their full potential*."

Good oral health is an integral part of that mission because a child's ability to learn will be severely compromised if they are suffering with the pain and sickness of bad teeth.

Native American Health – A Painful Lesson in Cultural Transformation

The greatest health disparities we have in this nation –including oral health – are on the Native American reservations, where once "*healthy, robust societies are being decimated by being forced into a western lifestyle.*" This was a culture which never had obesity or diabetes; who ate only fresh, organic food grown by their own hand; who were constantly active across broad plains of open country. Now, confined within small parcels of land, where unemployment rates are "skyrocketing," the quality of life and health for Native Americans is rapidly spiraling downward. This group has the highest rates of obesity in the nation; suicide rates are two to three times higher than in other cultures; and their oral health is "abysmal."

> *"We are a nation divided by our health disparities. If you are Hispanic, African-American, or Native American, your healthcare will generally cost more, you will die sooner, and you will cost society more money."*
>
> *–Dr. Richard Carmona*

As Dr. Carmona pointed out, "*this is an experiment we've watched for the past century*." We can learn a great deal from this cultural transformation. Consider that 100 years ago, the average white person rarely lived past age 50; yet the average Native American lived 20-30 years longer. Their culture thrived on many of the "healthy living" principles we promote today, such as eating well, and getting plenty of exercise. However, with the unrelenting growth of urban and suburban western communities, Native Americans increasingly had this "new" lifestyle imposed on them, and it has been their undoing. "*It's a lab experiment of what happens to a society if you're not careful as to how you deal with social determinants of health*."

The Impact of Preventable Diseases

When we look at spending $2.5 trillion on healthcare, nearly 17% of our GDP, it equates to 75 cents of every dollar being spent on chronic diseases, most of which are preventable or can be mitigated.

> "*We don't have a healthcare system; we have a sickcare system –one which incentifies providers to wait for citizens to get sick, and get paid to make them better. It's a great model because people keep coming back. They keep smoking, gaining weight, eating the wrong foods, living a sedentary lifestyle, not wearing a seatbelt; drinking too much, and so on. What all of that has in common is that it is preventable*."

Again emphasizing that real change comes from proactive measures, Dr. Carmona spotlighted a few of the most common preventable diseases that dramatically affect the dental and medical community.

- Smoking – Nearly half a million people die every year from tobacco-related causes such as pulmonary diseases and emphysema. Millions more suffer from oral health problems related to smoking; for example, oral cancer, gingivitis, and periodontal disease.

- Obesity – A health threat of epidemic proportions, now two out of three Americans are overweight or obese, including nine million children. Increasingly, we see children with Type II diabetes and high blood pressure –conditions which, only a few decades ago, were considered "middle-age adult" diseases. This alarming trend presents significant oral health ramifications as well.

Learn more in the 2007 IOH Conference whitepaper on Periodontal Disease & Diabetes.

> Get it on IOHWA.ORG

Furthermore, the problem of obesity is now presenting a national security risk. Dr. Carmona cited that the #1 reason recruits are not admitted into military service is because they fail the physical tests due to the problems of being overweight. Their mobility, strength and endurance is limited, and they often have chronic diseases that prevent them from meeting requirements. Additionally, the government has no program established to assess oral health, so they have had to deploy dentists to military bases to help get the soldiers into a healthy state before going overseas for active duty. He noted this example to illustrate how the lack of good oral health has a large scale implication, affecting national readiness and preparedness, as much as a cardiovascular problem or other systemic disease.

Obesity is the greatest accelerator of chronic disease in history.

The Key Metric: Health Literacy

In order to be successful in prevention and preparedness, and to adequately and appropriately address the social determinants of systemic and oral health, Dr. Carmona emphasized that, "*we need to practice health literacy.*" He defined this as:

> "*The ability for us to take the greatest science the world has ever known, translate it in a culturally competent health-literate manner, and deliver it to the people we are privileged to serve*."

The core objective in promoting health literacy is to influence behavior change. The outcomes are easy to track and measure: people eating less, walking more, quitting smoking, etc. On an individual level, these types of behavioral changes help patients adapt to a proactive healthy lifestyle. More importantly, on a national scale, these improvements have a "*magnanimous effect on population health*" as well as our economy. Nearly half of the nation is "health illiterate," costing hundreds of billions of dollars per year –most often because providers are simply too busy to take the time to carefully teach patients how to get well and stay well. Yet that education is a vital component in the overall healthcare equation.

"If patients don't understand, they can't participate in their care. They have to be active participants in the process or we're just spinning our wheels. That's where health literacy comes in."

–Dr. Richard Carmona

Dr. Carmona strongly believes we need to incorporate health literacy into all healthcare educational models and venues so that providers become "*experts in cultural competence in health literacy*." It is imperative that all doctors, dentists, paramedics, nurses, home care givers, etc. learn the importance and value of ensuring health literacy in the public, and how they can contribute to promoting healthy behavior changes by sharing their knowledge with every patient they see.

> "*The biggest barrier I had as Surgeon General was not that I didn't have the science to move forward. I had the best teams available and the latest cutting edge research. What I couldn't do was translate it effectively in a culturally competent, health literate way that would change people's behavior. As healthcare professionals, that's the burden we all have now.*"

Health literacy is not just about language, it is about culture. Health and well being are interpreted and valued differently across different cultures. That means healthcare providers need to invest in understanding the cultural needs and context of their patients, so they can educate patients on health literacy in ways that are meaningful and relevant.

How We Achieve the Holy Grail

To effectively address the issue of defining and driving quality, Dr. Carmona encouraged all healthcare providers to focus on a monumental goal: **Create proactive, knowledgeable, accountable, responsible patients**.

> *"The citizen has to be the focus of all of our attention to drive quality and cost in the open market. Engage the public to change behaviors around any metrics you are looking at."*
>
> *–Dr. Richard Carmona*

If we create that Holy Grail of a patient, Dr. Carmona noted, then as those people shop for dental care, they will drive quality in dentistry. The same as with other products and services, the more consumers know about what defines high quality, the more they expect and demand it. While quality is not the only factor driving their choices, when they are well informed, consumers are more likely to be influenced by the value proposition of getting better quality for their money. In this respect, patients must be part of the equation in driving quality. They can play an integral role in creating the competitive market that will help drive changes in provider behaviors and policies that advance the quality of care.

Unfortunately, in the current healthcare model, patients are basically segregated from the healthcare process. With little or no knowledge about the cost and quality impact of their own health behaviors and provider care, patients may never change an unhealthy lifestyle. Until we educate and motivate patients to assume a measure of responsibility in the healthcare process, Dr. Carmona believes, "*it's hopeless to try to transform the system*."

How We Transform the Healthcare System

How do we get there from here? Dr. Carmona offered the following recommendations:

- Engage the public through health literacy – This change starts in everyday dental practice. Everyone on the dental care team needs to participate in collecting data, and to communicate using "health-literate and culturally-competent language," which will vary in level and style from patient to patient. When producing oral health literature published from the Surgeon General's office, Dr. Carmona was advised to write for a 6th to 7th grade reading level in order to ensure the information would be understood by the greatest number of people. As providers, communicating health literacy will take practice, and most importantly, close attention, sensitivity, and empathy for each patient's needs.

- Make the business case for dental quality – Dr. Carmona joked that popular TV and movies spotlight daring emergency rescues and complex medical traumas, but we will never see anything about your average day in public health, watching a quiet, efficient dental office doing their thing. So, oral health care providers need to get creative about evangelizing the value of what they do, the importance of their role in keeping society healthy and productive. In driving policy changes and healthcare reform, have experts at the table who can ensure that oral health is included in the overall perspective. Building the business case for oral health is essential when there are so many other issues competing for money, time and attention.

- Create large, mutually-agreeable databases to drive evidence-based decision making – These data sources will be vitally important in helping us determine best practices and the cost effectiveness of those practices. Although everyone believes they are doing the best they can, there is little evidence to justify that. Dr. Carmona noted that a provider's sense of quality is often anecdotal and intuitive, and that is not enough to drive best practices across our profession.

- Incorporate new technologies into quality value propositions for the industry – As healthcare professionals, we see how rapidly technology advancements become available. Yet are they the right thing for every patient? It is important to carefully evaluate how progressive treatments factor into the quality and cost-effectiveness of patient care. As an example, Dr. Carmona recalled when laser surgery became the latest new thing. When his patients began requesting it for certain procedures, he advised them that it would be much more expensive and would produce the same results as a simple, low-tech approach. Yet when patients insisted, he recognized they were influenced by their knowledge of the new technology, which for them, helped drive the value proposition that this new treatment was a quality investment.

- Make all healthcare professionals agents of change – Start promoting quality behaviors in every dental and medical school, every healthcare training facility. Encourage the broader spectrum of care providers --from emergency medical technicians to pharmacists— to serve as change agents as they interface with patients, helping to educate the public on better ways to manage their health. Doctors and dentists cannot do this alone -- we need partners all across healthcare to reinforce health literacy about optimal health and wellness through prevention.

In closing, Dr. Carmona noted the dental profession has already demonstrated successful leadership in advancing change. Through effectively advocating national prevention programs, dentistry has transformed public behavior. Across the nation, people are now more informed about the need to brush, floss and get regular checkups. Dr. Carmona conceded that the medical community has not yet had this success, and that it could learn a lot from dentistry's model. What the dental profession has accomplished is, in essence, a "*rebranding of the image of dentistry*" by promoting proactive, prevention strategies as a key value proposition for quality and cost-effectiveness. While there is still a long road ahead in this respect, dentistry has made significant strides in creating a health-literate population willing to take responsibility for their health, which in turn has resulted in a huge magnitude of improvement on the disease burden of oral and medical health. That makes for a very compelling start toward achieving real quality and transforming our healthcare system.

Jason Leitch, BDS, FDSRCS, DDS, MPH

National Clinical Lead for Patient Safety and Improvement, Scottish Government; Fellow, Institute for Healthcare Improvement, Cambridge, Massachusetts

Quality in Healthcare – We're Not as Good as We Think We Are!

Originally an oral surgeon, Dr. Jason Leitch has devoted much of his career to improving quality and safety in healthcare. His work with the Scottish Government has been instrumental in developing a structure within their healthcare system for measuring and quantifying the services they provide to the nation's population. At the 2009 Institute for Oral Health conference, Dr. Leitch outlined some of the challenges facing our healthcare system and introduced the change model --championed by the Institute for Healthcare Improvement in Cambridge, Massachusetts and adopted by NHS Scotland-- that is being used throughout the world to transform healthcare systems, improve healthcare related outcomes, and make care safer for patients.

A Look at Healthcare in Scotland

Scotland's healthcare system, supporting a population of 5.5 million people, is managed by 14 territorial boards, which are responsible for how care gets delivered across various regions of the country. Their system now links healthcare and social care, and includes dental care –with certain caveats. After years of expensive, inaccessible healthcare, over 50 years ago the U.K. government introduced a new system, the National Health Service (NHS), in which anyone could access care when they need it –for free.

Dr. Leitch noted that in the early days of the NHS, they were overwhelmed by response from the public –and one of the most common things people needed was complete dentures. It nearly bankrupted the system because of the expense and time required, so dentures services were removed from the NHS. Dr. Leitch joked that the government basically said, "We're not going to be able to do any cardiac surgery because everybody wants dentures." The system now once again supports dentures services; however, it requires a "co-pay" from some patient populations. Dental care is free of charge for children, the poor, the elderly, and pregnant women; however, the system controls which services they can receive. For example, no one can receive implants unless there is a compelling functional need or related severe condition; one cannot get implants simply because they are elderly and losing their teeth.

As described on their website, NHS Scotland (as of 2006) is supported by over 47,500 nurses, midwives and health visitors and over 3,800 consultants. There are also more than 12,000 doctors, family practitioners and health professionals, including dentists, opticians and pharmacists, who are independent contractors providing a range of services in return for various fees and allowances. (*www.show.scot.nhs.uk*)

NHS Scotland Quality Improvement website
www.nhshealthquality.org

The Real Danger in Healthcare

"*How many people are harmed in our healthcare system*?" Dr. Leitch asked this question, referring to situations that require intervention –not as a result of a disease but as a result of the patient care itself. Initially, we might see a number like 10%, but Dr. Leitch claimed that is only what gets reported voluntarily, such as a doctor admitting they prescribed the wrong drug or removed the wrong kidney. But if we start looking through case files and really track what is occurring, we may be shocked by what we find.

For example, one of the best studies, conducted across North Carolina hospitals, revealed that about one-third of patients are harmed by the care they receive. Part of investigating this is to simply look for abrupt changes in treatment that might trigger adverse events.

Additional studies have shown that the "defect rate" in the technical quality of American healthcare is approximately **45%**. (McGlynn, et al 2003). The numbers are similar in Scotland and the UK. Furthermore, to illustrate the problem, Dr. Leitch cited a statistical quote, which surmises that the healthcare profession has spent, "*17 years to apply 14% of research knowledge to patient care*." (Balas 2000)

The IHI Model for Improving Quality

To set a trajectory for change, the dental profession needs models of what the future of dentistry can look like. Dr. Leitch started by first discussing the Massachusetts-based Institute for Healthcare Improvement (IHI). During his fellowship with IHI, Dr. Leitch participated in their "100K Lives Campaign", which promoted a call to action to save 100,000 unnecessary deaths. This initiative was intended as a wake-up call to the American healthcare system about patient safety, and they achieved their goal using evidence-based interventions. As the only dentist at the IHI, Dr. Leitch rallied for a new campaign to save 100,000 teeth. Although it was not supported, the IHI does now promote more information about dentistry.

As a point of progress, Dr. Leitch was part of a program that used a model developed by the Institute for Healthcare Improvement that has been adopted by some dental clinics in Colorado and Montana. The primary mission is:

> "*To develop comprehensive primary oral health care system change interventions based upon the Care Model and evidence based concepts that generate major improvements in process and outcome measures*."

The IHI model is simple; it focuses on three steps: define a plan, measure, and change. In other words, figure out "what are you trying to do, how you will go about it, and what changes you can make as a result." To provide some direction, the IHI model was developed to target three key areas for which providers could create measures and guidelines for quality improvement:

- Early childhood caries prevention and treatment
- Perinatal oral health
- Practice redesign and office efficiency

As an example of how the model works for perinatal oral health, Dr. Leitch outlined the "patient journey" for a pregnant woman from a dental perspective. The goal is to identify what types of care she ideally should receive during this time –and then gather evidence to prove its effectiveness. In prenatal care, the model starts by defining which measures and interventions should occur in each trimester of the pregnancy. For example, in the first trimester, as pregnant patients often think only of seeing an OB/GYN, the first recommendation is to have physicians refer patients to a dentist. That step alone could represent an important improvement in a patient's oral health and prenatal health. Also in the first trimester, the patient should receive an oral health assessment, and the dentist should educate her on self-management strategies to ensure good oral health throughout the pregnancy. Based on the oral assessment, the second and third trimesters might include phased interventions such as periodontal treatment.

"Health professionals have chosen these jobs because they want to do a good job. If you give them the tools and space to do it, usually they will do it."

– Dr. Jason Leitch

A measure testing the model looked at the number of pregnant women being referred to a dentist over a 12 month period. Within one year of making this recommendation to physicians, the numbers went from 0-20% to about 70% referrals. A similar measure tracked the number of pregnant women who had received a comprehensive dental exam, Again, within one year, there were marked improvements, in some cases rising from 0% receiving care to over 40%. As Dr. Leitch noted, this is not a national campaign but the kind of change any dental clinic can make. "*It's locally driven change, done properly.*"

Dr. Leitch emphasized that the success or failure of change is largely based on the approach. Too often, providers feel they are being "inspected" and thus, they behave with resistance and resentment. When instead, you give people a model for change that enables them to take ownership and help steer the ship, they are often much more motivated to participate and be accountable for the results.

A New Care Model to Transform Quality

While change on a local level is highly valuable, Dr. Leitch is passionate about changing healthcare quality in more substantial ways as well – to create a real paradigm shift in how we deliver care as a profession. In Scotland, to radically reverse the trends of ineffective or inappropriate care, the NHS has implemented a transformative new approach to healthcare. It starts with a vision based on motivating change through collaboration at many levels to encourage buy-in, and consistent data collection to validate both what needs to change and that change is actually working.

Dr. Leitch leads the Scottish Patient Safety Programme, which is being designed and developed with the help of a senior vice president from the IHI. Because they are introducing very new approaches, they have defined their mission more as a "theory", which includes:

- Build a compelling case for change – Name the problem and get influential leaders to acknowledge it and become champions for change.
- Work on processes and outcomes that engage the hearts and minds – Shift the approach from 'shouting' directions at healthcare professionals to engaging people at all levels to be part of designing and implementing change that is meaningful to them.
- Reduce waste and redundancy – Find ways to save money so you can redirect it into the new services you are designing.
- Work at the coal face and at the executive level – Engage everyone in the process, especially those on the "front line" of care, so they feel ownership over how change is managed and controlled. You also need leaders to back the change and actively evangelize it.
- Data feedback, data feedback, data feedback – A key strength in the process is transparency; it's crucial to share data with healthcare teams before and after changes are implemented.
- Set the tempo! – Maintaining "*an incessant drive for change and improvement*" helps keep momentum strong.
- Changes in process and outcomes are directly connected – People must see and understand the relationship between process and outcomes, and be given meaningful tools to make change happen. For example, "*If you tell people they have to get rid of infections, and you don't give them a process by which they can do that, and measurements, you're lost. Passing out laminated sheets of guidelines and telling people how to behave doesn't work. Yet, we still insist on doing that. We have to have processes that grab the front line and get them interested in changing*."

- Changes being tested, when fully implemented, will lead to large system aims – Here, the new model relies on innovation because it is largely based on educated "best guesses" that need to be validated. But so far, it is working.

5-Year Outcome Aims for Patient Safety

The Scottish Patient Safety Programme is taking on major challenges to change trends in patient outcomes. On a global level, their goal is to develop and build a quality improvement and patient safety culture in the hospitals, and build in long-term sustainability and capability to drive this approach at all levels.

The program's gameplan includes numerous objectives, and Dr. Leitch highlighted a few, particularly their most daunting goal focused on reducing the acute care mortality rate. Some key goals include:

- Mortality: reduce by 15%
- Adverse Events: reduce by 30%
- Ventilator Associated Pneumonia: 0 or 300 days between
- Central Line Bloodstream Infection: 0 or 300 days between
- Blood Sugars w/in Range (ITU/HDU): 80% or > w/in range
- MRSA Bloodstream Infection: reduce by 30%
- Crash Calls: reduce by 30%

Innovative Interventions for Improving Safety

Currently, in their focus on improving safety in critical care, the safety program centers on five workstreams, and some of the interventions within those workstreams include:

- Critical Care - Ventilator acquired pneumonia bundle, central line
- Ward - early rescue and communication
- Medicines - reconciliation
- Theatres - surgical pause and infection prevention/control
- Leadership - safety walk-arounds and executive leadership board patient safety profile

To illustrate an example of new interventions, Dr. Leitch spotlighted the recently released "Surgical Safety Checklist" developed by a group of doctors for the World Health Organization (WHO). The checklist includes safety recommendations to be implemented at key stages of a typical surgery, including what to do "before induction of anesthesia", "before skin incisions", and "before patient leaves operating room." For example, the fundamental safety checks before starting a surgery are to confirm you have the right patient; that you are doing the right procedure in the right location; and that you are aware of any allergies or aspiration risks. The WHO provides the checklist in English, Spanish, and French, and encourages practitioners to modify the checklist to suit their local practice needs.

To test this safety checklist as an intervention, a research team led by Atul Gawande from Boston University conducted a measure across eight hospitals worldwide that included a total of nearly 6,000 beds and 160 operating theaters. Comparing outcomes before and after implementing the checklist, results showed a 46% reduction in surgical site infection and a 47% reduction in mortality.

One of the single most dramatic improvements was at an 1,800-bed facility in the Philippines. This hospital reduced their surgical site infection rate from 20.6% to 3.6%, and their reports of "any complication" were reduced from 21.4% to 5.5%. Even the highly respected University of Washington Medical Center in Seattle, WA improved their "any complication" rate, dropping from 11.6% to 7.0%.

Revolutionizing Outcomes Through Safety

Through the Scottish Patient Safety Programme, Dr. Leitch and his team have achieved significant progress in changing processes and improving outcomes, but almost more importantly, they are seeing fundamental change in the workstyle paradigms of healthcare providers so that safer, healthier patient care is always the first priority. He highlighted some success stories from their work so far:

- Reducing length of hospital stay & increasing efficiencies – Dr. Leitch pointed out that while most U.S. hospitals have 30 - 40 beds in an intensive care unit, in the U.K., those units typically have only about six beds. Highlighting some successes they have achieved, Dr. Leitch showed measures from the second biggest hospital in Scotland, wherein after 18 months of implementing new processes and safety interventions, the ICU was able to reduce the average length of patient stay by a day and a half. Furthermore, they have increased their efficiency by identifying daily goals of what needs to get accomplished by day's end, and implementing multi-disciplinary rounds so that all decision makers are in the same place at the same time. This collaborative approach ensures that everyone relevant to the patient's care - e.g., doctor, nurse, nutritionist, and physical therapist— is present to discuss with the patient how things are going and what needs to happen. Previously, that took about 10 hours and four different visits, which aside from the time expense, left a considerable margin for error in terms of translating patient needs across the various providers.

- Eliminating "central line" infections – Often used in ICU, a central line is a catheter inserted into a large vein to deliver medications and monitor cardiovascular status. Line infections can be deadly and yet they have become common enough to be tolerated as an unfortunate side effect. These infections can result in patients spending an extra week or two in the hospital, having co-morbidities, even dying. The Scottish Patient Safety Programme and the IHI gathered the evidence on five basic procedures for preparing and monitoring central lines and "bundled" them into a safety process which, when done reliably, can eliminate line infections. This bundled process is taught as a change methodology. Dr. Leitch noted that while ICU clinicians might insist they know all the steps to avoid line infections, those steps are only taken about 30% of the time. For their safety program, Dr. Leitch's team introduced the bundled process and made it clear they would be measuring progress, wherein facilities only got credit when the full five steps were done for each patient. Across two of Scotland's largest hospitals, they were able to achieve what they previously never thought possible: with this new process, they eradicated central line infections entirely, not one incident since the end of 2007.

  This is an exceptional example of how the new model works --providing teams with an evidence-based tool they can use, and using measurement as an incentive to drive change. Moreover, as facilities are seeing these results for themselves, it is transforming their culture as healthcare providers. Now they "grieve" when an infection occurs and they really investigate what is happening and work hard to remedy it.

- New approach to Crash Calls – Dr. Leitch described the common scenario in ICU wherein a patient is recuperating from surgery but they are not doing well, in fact, really slipping downhill. Previously, an expert "crash call" team, whose job is to try to resuscitate patients, could only be called in when a patient died. They managed to bring patients back to life 7% of the time. Thus, a fairly obvious safety improvement was to introduce process changes for ICU staff to try to catch the patient deterioration as it happens, and if needed, call in a "rapid response team" before it is too late. Dr. Leitch's team gave hospitals a bundle of safety steps (in this case, a series of vital sign checks) to be conducted often on every patient in order to monitor their "early warning score." With a score of 5 as the healthiest level; a "3" would indicate that staff should check again in 30 minutes; if the patient is a "2" they are in trouble and it is time to call the rapid response team. Ultimately, these changes are helping to educate the ward team, reduce medical emergencies, and improve overall care. Furthermore, Dr. Leitch's team developed measurements to track compliance in using the "early warning score" and outcomes in the crash call rate. Since the change was implemented in mid 2008, the incidence of crash calls has "plummeted" and is being sustained at low levels.

  "These Crash Call teams are the cleverest people we've got and yet they manage less than 10% of survival. We had to get them involved sooner."

  – Dr. Jason Leitch

  "Now the crash call rate has plummeted. Honestly, when we show this data to the board, they think we are making it up."

  – Dr. Jason Leitch

- Medicines reconciliation – This important safety change addresses the challenge of finding out which drugs a patient is actually taking and getting them correct for that person's specific needs at the time of hospital admission. They found it was common that patients were mixing and matching medications, and often taking drugs prescribed to other family members such as pain killers or anti-depressants. As such, the safety team raised awareness on the need to create a complete list of meds for each patient --from prescriptions to over the counter drugs to herbal remedies—upon admission. Surprisingly, the team found staff at some hospitals self-correcting by creating their own reward incentive programs through use of a "star chart." Borrowing on a primary school theme of good performance rewarded with a gold star, doctors were given a star every time they completed medications reconciliation for a patient, and the doctor with the most stars at the end of a week won "Doctor of the Week." Staff then expanded this competition to include trainees, consultants and so on. Basically, their own competitive spirit to be winners drove dramatic improvements, and now hospitals all over Scotland are using "star charts."

American healthcare providers may be tempted to look at these successes and assume it has been much easier for Scotland due to their small population –but that is not the point. It is about making a commitment to improving quality by creating and adopting a progressive model for change –one that can be done on even the smallest local level. We can all find inspiration and ideas as we look at the successes of the Scottish Patient Safety Programme, particularly in how it is transforming the culture of caregivers.

> "*The Scottish Patient Safety Programme is without doubt one of the most ambitious patient safety initiatives in the world – national in scale, bold in aims, and disciplined in science. It harnesses the energies and wisdom of Scotland's healthcare leaders –NHS executives, QIS experts, clinical professionals, civil servants, and more– all aligned toward a common vision, making Scotland the safest nation on earth from the viewpoint of healthcare*."
>
> – Don Berwick, CEO and President of Institute for Healthcare Improvement

Glen Hiemstra

Founder and owner of Futurist.com; International Consultant and Author on Future Trends

Creating the Preferred Future - Possibilities, Pitfalls, Practicalities

To introduce a change management perspective to the oral healthcare equation, the 2009 IOH conference featured noted futurist Mr. Glen Hiemstra, author of "Turning the Future into Revenue." Mr. Hiemstra outlined common challenges that impede the progress of change, and strategies and models for successfully moving toward a preferred future vision. He encouraged the dental profession to work collectively and proactively to shape a future that will genuinely improve the quality of patient care and oral health in America.

How We Approach the Future: The Railroad Analogy

As an analogy to illustrate the various ways people and organizations tend to approach change, Mr. Hiemstra introduced a story about a businessman driving on a rural road, who comes upon a railroad crossing. In terms of change, the various ways he chooses to deal with the train could be interpreted as four alternative responses to the future:

1. Get on the tracks and try to stop the train from happening. If this is your only response to a future that is changing, it will work against you, because change is coming anyway, and you need to prepare in some way (e.g., anticipate what it will mean for you, how to adapt, how to influence the change, etc). As an example, in the Clinton era, healthcare reform was on the tracks coming towards us. As a consultant, Mr. Hiemstra was engaged to help a state-wide association create a strategic plan to help them prepare for reform. The director of the organization admitted he had heard Hiemstra's "railroad story" and that most of his members wanted to stop the train. They were resistant to healthcare reform, wanting things to stay as they were. Mr. Hiemstra's job was to convince the organization that if they stood on the tracks resisting change, they would get run over.

2. Get on the train and adapt to wherever it goes, because you assume nobody can do anything about it anyway. While life requires a good amount of adaptation, this is not a proactive approach, and likely not a rewarding one.

3. Get on the train, and hire someone or create a taskforce to try to predict where the train is going. This approach is certainly more proactive; however, the future is never entirely predictable, so you will still get some surprises. Looking at the challenges facing the dental profession, it may well be a smart strategy to gather a taskforce to alert everyone a year in advance about what healthcare reform is going to look like; the role oral health will play; and what the forecasters and insiders say about what is really going to be there in the end. In this way, the dental profession has a better chance of being ready and well positioned when the change rolls out.

4. Get on the train, move into the engineer's compartment, and help to steer or control the train. Imagine an array of switches and tracks where you have a degree of control over where the train goes, and how fast it moves. At this year's IOH conference, many of the featured experts highlighted specific tracks they believed the dental profession should follow and how fast they should go. By addressing how progress is being made in various places and with various populations, they were illustrating how to throw the switch and direct the train onto a new track that can take a practice, organization, or even the profession as a whole to a more progressive place. This response is the most proactive and what Mr. Hiemstra calls, "inventing the future."

Take Advantage of this "Fertile Time" for Change

As a futurist, Mr. Hiemstra is often engaged in helping organizations and corporations prepare for and implement change initiatives. He also keeps a close eye on emerging technologies and business trends, and he encouraged dental professionals to be aware that the time is ripe to promote innovative thinking and change for how oral health fits into the healthcare system.

To emphasize this point, Mr. Hiemstra recounted his recent participation in the October 2009 "Future in Review" annual global technology conference, held in Seattle, Washington. The conference showcased a world-class gathering of local and global thought leaders in technology, healthcare, and economics. One of the featured speakers was Dr. Lee Hartwell of the Fred Hutchinson Cancer Research Center. Dr. Hartwell is a Nobel prize winner for his groundbreaking research in biomarkers to detect and help cure cancer. As an indicator of this "fertile time" for driving change, Dr. Hartwell stated that, "*In the last five years, our understanding of biomarkers has increased tenfold.*" What they have been learning has prompted them to shift their focus in the biological sciences from genomics to proteomics, which looks at how proteins are expressed by all the cells in the body. Scientists have discovered that proteins are more powerful and precise biomarkers for identifying disease possibilities and health conditions. Using protein biomarkers, biotech organizations are now developing enhanced chemotherapy treatments that can precisely target specific cancer cells without endangering nearby healthy cells. If this technology succeeds, it could enable oncologists to use higher doses of chemo with fewer side effects, in the hopes of having a more effective and rapid impact on cancer.

Another example from this conference exploring future technologies featured a robotics company. A doctor from the company gave a demo in which he used his laptop to remotely access his office in California to activate a sophisticated robot in his office. With a high resolution visual display, he directed the robot to attend to a patient lying on a bed, and had it perform a number of checkup functions such as zooming in to view vital signs and closely examining the patient's pupils –all in perfectly clear, larger than life detail, and all within sixty seconds. He demonstrated this remote access to illustrate how a short supply of top experts in a field could provide care for an exponentially larger population of patients through the help of remote-access robotics. As an example, the doctor giving the demo cited that while we have 300 million people in the U.S., there are only 300 top neurosurgeons handling stroke treatment, a condition in which patients often need care within the first three hours to really make a difference. This technology could enable those neurosurgeons to access any patient in their city, at any facility, within the critical timeframe –without ever leaving their own office.

Innovate Change With "Whole Systems" Thinking

Whole-systems thinking and design looks at how large systems change –and a guiding principle is that everything is interconnected. Hence, when we look at changing healthcare, we can see a fundamental flaw that is inhibiting change because there exists too little interconnection between the medical and dental industries. It is highly unlikely that we can affect real patient-centered change until we achieve a firmly established integration and interdependence between these two core professions to create one, unified entity that defines "healthcare." In other words, dentistry needs to do everything possible to achieve stronger interconnection with medical in order to effectively initiate whole systems change.

To some degree, the data already exists to make this connection; for example, the linkages between periodontal disease and diabetes, between oral health and heart disease, and so on. However, in terms of data needed to make the business case, dentistry has barely scratched the surface.

To some degree, the data already exists to make this connection; for example, the linkages between periodontal disease and diabetes, between oral health and heart disease, and so on. However, in terms of data needed to make the business case, dentistry has barely scratched the surface. Furthermore, it is safe to assume that the medical community will not stop to offer dentistry a "leg up" to equal footing –particularly when there is stiff competition for resources. The dental profession will need to prove their way into being recognized and resourced with equal value in the overall healthcare system. And that means data. It is imperative that all dental professionals step up their efforts to collect reliable data on patient outcomes, and effectiveness and appropriateness of care –most especially with high-risk patients who have accompanying medical concerns. If the dental profession can accumulate enough data that proves how oral health care helps improves overall patient health and reduce medical expenses, dentistry will have a significantly better chance of winning the critical buy-in of the medical community and government policy makers.

Define a Compelling Vision for Change

It is never enough to simply "dream" of the way we want things to be, in terms of providing better care or having a greater impact on patient health. To promote real change, it takes a vision --a "compelling description of a preferred future"-- which typically requires taking a systematic look at the current situation and what needs to be changed, and creating and executing a realistic plan for achieving that change. As Mr. Hiemstra noted, "compelling" is an operative word because in today's economy, businesses and organizations embarking on change need to define a vision that will most likely create outcomes that are compelling on a larger scale. A truly powerful and winning vision for healthcare is one that not only benefits all the stakeholders and the greater community, but that proves valuable enough to influence policy makers.

How Do You Get From a Vision to Where You Want to Be?

A key problem with "visions" is that it is hard to put them into practice. Mr. Hiemstra cited a study by the Harvard Business Review that tracked 100 large corporations that tried to implement "planned change." Although these companies carefully mapped out where they were, where they wanted to go, and how they would get there –65% of the time, their plans failed to have an impact on the organization. Why?

The study explained eight key factors that impede the progress of change, and Mr. Hiemstra highlighted some of the findings:

- No sense of urgency – If people do not feel that change is absolutely required, they will rarely be motivated to participate and adapt.
- Not creating a powerful enough guiding coalition – Mr. Hiemstra speculated that the dental profession has not yet created a strong, unified front dedicated to achieving the necessary visibility and integration with medical that is required in order to be considered as a core part of the healthcare system.
- Lack of a compelling vision – A well planned, well organized, realistic and attainable vision is mission critical.
- Under-communicating the vision – Effective communication is a core competency in any organization, and it becomes even more important in driving change. To motivate buy-in, you need to actively and openly market the change, and enlist champions who can help communicate the vision across all the various populations involved.

- A lack of small winning steps – Rather than creating a "grand plan" that outlines sweeping change, it is usually more effective and empowering for people to take an incremental approach in which they identify and act on small plans, step by step. That way, the organization generates a momentum of gradual, consistent success, rather like a train pulling out of the station and eventually gearing up to full speed to get to its ultimate destination. If you set out to achieve "full speed" all at once, you will likely fail because it is unrealistic and rarely attainable. By undertaking small steps that are achievable, an organization can stay focused on what they know is possible and necessary to actualize that part of the vision.

Overcome the Resistance to Change

To successfully motivate and implement a preferred future, you have to overcome people's resistance to change. To highlight this principle, Mr. Hiemstra outlined a formula for assessing the various elements of change that can help an organization understand where to invest their resources.

Formula: D x V + A > R

D = Dissatisfaction

V = Vision

A = Action

R = Resistance to Change

Dissatisfaction x **V**ision + **A**ction must be greater than the **R**esistance to Change.

- Investing in Action – Mr. Hiemstra emphasized that change works like a simple mathematical formula. For example, suppose dissatisfaction is very high, and you have an excellent vision, but nobody knows how to take action to make it a reality. The logical next step is to outline clear action items to move change forward –in this case, working on the action part of the equation. A common myth about visions is that once everyone understands the vision, they will all know what to do –which is rarely true. While people may be dissatisfied with the current situation and very attracted to the new vision, they will likely still need very specific guidance on how to make the vision happen. Furthermore, clarifying action steps is also an important way to ensure the vision gets executed accurately and consistently across everyone involved, from a private practice to a large enterprise to the entire profession.

Common quotes about change:

"It isn't that people hate change, they hate being changed."

"People love the idea of change, until they realize that things will actually change."

- Investing in Dissatisfaction – Another common situation that impedes the progress of change is that dissatisfaction may be present, but not high enough to motivate change. Mr. Hiemstra recounted a consulting project in which an organization had defined a preferred vision and had people interested in the change, but nothing was happening because people were not dissatisfied enough with the status quo. So he helped the organization develop a three month strategy to essentially make people more dissatisfied in order to increase their sense of urgency for change. In this case, they focused on the "D" part of the equation by creating a series of activities that would highlight how bad things were. Similarly, the dental profession could target the dissatisfaction part of the equation to motivate change, for example, noting statistically the poor state of national oral health; the negative impacts on economic bottom lines; the volume of time wasted and related expense, and so on. A word of caution in using this strategy: do not create a list so long and so negative that you risk overwhelming your target audience and engendering an attitude of defeatism.

Concerns-Based Adoption Model

Within large organizations or professional arenas, it can be very hard to make systemic change when so many people operate in silos, each with their own way of doing things. To address this challenge, years ago in academia a model was developed called the Concerns-Based Adoption Model (C-BAM). C-BAM is a developmental sequential model of the stages of concern that people go through as they are coping with change.

The premise of C-BAM is that an organization must successfully transcend one stage of concern before moving on to the next. Suppose you have a great new vision and have developed a plan and detailed action steps. When you introduce people to the change and the proposed plan, undoubtedly you will encounter resistance from everyone who was not involved in the creation of the plan. C-BAM provides a model for how to address their concerns:

- Stage 1: Awareness – What is this all about? Once people understand what is happening and how they can be a part of the change, they are typically more curious and thus, ready to move onto the next stage.
- Stage 2: Personal Concerns – Often the reaction to change is one of self-preservation: How will this impact me? Will I have to do things differently - learn something new, work harder? Will it impact my position, my salary? The C-BAM model presumes that people are usually unwilling to move on to the next stage until those types of personal concerns are addressed. One way of satisfying this stage of concern is to highlight how the change will benefit people, but also be honest about any downside so people can start emotionally preparing for it.
- Stage 3: Management Concerns – How do we make this change? Suppose an organization proposes a progressive change that everyone agrees is a positive step forward. People understand the change and are on board with the idea; and they recognize how it will be good for them even if it takes hard work. Now their concerns center on how the organization will manage the change –issues such as what steps do they need to take; what do they need to learn; what resources will they need, and so on. Once people are comfortable at this third stage of concern, they are ready to move to the final stage.
- Stage 4: Improvement Concerns – How can we improve this change? At this stage, people are aware of the change and comfortable with making the transition, and they understand what needs to be done. Now they are ready to contribute ideas on how to improve the process or the outcome. At this stage, an organization has a great opportunity to leverage a broad range of expertise to help strengthen the vision

As a proactive strategy to anticipate concerns, Mr. Hiemstra suggested that organizational leaders should try to introduce a change by framing it as an idea they are proposing and ask for questions. Listening carefully to people's questions will inform leaders on where people are in the Concerns-Based Adoption Model, so they can address concerns accordingly.

How Do You Invent the Future?

Mr. Hiemstra introduced a further model that helps organizations plan for change by defining things into three categories:

- What is probable
- What is possible
- What is preferred

A common mistake of many organizations is that they do not have a realistic picture of where they are on the continuum of these three categories. For instance, a practice may think they have already moved into the arena of what is possible or even preferred, when they are actually still back on what is probable, which may be considerably different. This is particularly the case when organizations have not accurately assessed the company culture and the stakeholders involved in a change. Or, if they have not gathered the necessary data (or are ignoring the data) that indicates where the challenges lie.

So what about those organizations that truly succeed in navigating change and inventing a preferred future – how do they do it? Mr. Hiemstra offered some keys to success outlined by the founder and CEO of Dell Computers:

1. Always start with getting the facts and the data – Dell succeeds by knowing precisely where they are as an organization and proceeds only when they have reliable, actionable information.

2. Identify whether the problem (based on data) is one of strategy or execution – If it is a problem of strategy, it means the organization is not doing the right thing. If it is a problem of execution, it means they are likely doing the right thing, but they are not doing it very well. Once an organization identifies the nature of the problem, they can more easily and efficiently course-correct. Using the dental profession as an example, if the goal is to improve overall patient health, are we employing the right strategies to achieve that? Some of the featured experts at the IOH conference indicated that some of what is happening in dental care today is not the best strategy for achieving "whole systems" health.

3. Move beyond fixing the problem to "making it awesome" – This progressive approach encourages everyone involved in a change to think and act beyond the obvious, beyond the immediate. It is a call to action to rise to the occasion of greatness –and in so doing, everybody wins.

In closing, Mr. Hiemstra noted that in his years as a futurist, he has learned that most people hold a perception of the future as a nebulous thing somewhere "out there" beyond their current experience. "It's this thing that rolls over us that we have to get ready for." On the contrary, he said, the future is not something that simply happens to us, it is something we do.

The challenge for each of us is: **what are we going to do?**

Featured Speakers

James Bader, DDS, MPH

Research Professor, Operative Dentistry, University of North Carolina School of Dentistry

Using Outcomes in Oral Health Quality Assessment

For many years, Dr. James Bader has been instrumental in assessing and defining metrics for oral health quality. Throughout his career he has researched dental practices and treatment outcomes, and ways to measure them to establish quality benchmarks. His work has been the foundation for much of what we look at today as we strive to define and improve patient care quality.

At the 2009 Institute for Oral Health Conference, Dr. Bader addressed the multiple dimensions of patient outcomes and how they can be used to help evaluate the quality of care, and to develop appropriately targeted quality improvement programs.

Assessment Measures in Use Today

Dr. Bader began by introducing measures that are widely used today to assess patient care quality in private dental practices. These measures evaluate the following:

- Technical excellence of individual restorations – As this is the primary focus for dental education, many dentists consider technical excellence to be the final word on dental care quality. However, as a measure it tells us very little about the actual quality of patient care. For example, there is little evidence to connect technical excellence with longer-term patient outcomes such as reducing the risk of caries or the need for endodontics. Furthermore, evaluating technical excellence is expensive and time-consuming in order to get a reasonable sampling; and the criteria are often subjective and difficult to standardize.

- Patient satisfaction – As a concept, these can be useful and cost-effective measures in which "the patient is the expert," offering their perception on aesthetics, function, and comfort of care they received. However, these measures have problems as well. Dr. Bader noted that there are too many patient satisfaction measures out there today, with broad variations in wording and topics. Additionally, these measures often investigate only a limited set of dimensions that influence quality; use unvalidated scales; and tend to use biased sampling schemes that over-represent regular patients who have a relationship with the practice.

- Service use measures – Referring to procedures, these measures can be useful but have a limited scope. They typically look at rate of use per year or percent of patients receiving a given procedure, and are easily tracked through claims data. The benefits of measuring service use include the ability to address access questions; evaluate adherence to certain evidence-based guidelines (if they exist); and identify trends in the practice that could influence plan benefits. However, these measures rarely include diagnostic data that would address appropriateness of care issues, nor do they look at outcomes to assess the effectiveness of a service.

- Other structure and process measures – These measures, which look at structure and process, are commonly used by dental plans when they want to evaluate a practice to determine whether to add it to their provider network. For example, in terms of structure, they evaluate the quality of facilities, equipment, personnel and administrative systems. To evaluate process, the measures

look at criteria such as practice management, infection control, treatment planning and diagnostic accuracy. For these measures, evaluators can go by experience as to what is "generally assumed to reflect good practice;" however, there is very little evidence that these criteria are indicators of patient care quality and outcomes.

On the whole, the measures in general use today tend to be more problematic than helpful in terms of accurately assessing patient care quality. While they provide some useful information, the validity of these measures is unreliable, their scope is too limited, they are resource intensive, and most importantly, these measures rarely evaluate some of the most informative variables in defining quality patient outcomes: appropriateness and effectiveness of care.

Assessing Multiple Dimensions of Patient Care Outcomes

Dr. Bader believes that focusing on patient care outcomes is the most valuable target for assessment.

> "*If our purpose as dental care providers is to maintain or improve oral health, shouldn't we be evaluating how well we meet the purpose of patient care? We should be able to say, the better the oral health, the better the patient care quality*."

To effectively evaluate patient care quality, Dr. Bader identified five key "outcome dimensions" that reflect the patient experience. In some cases, measures exist for these dimensions, however, they too present challenges in providing accurate and consistent data. The outcome dimensions include:

- Biological Dimension – Considers the patient's *physiological* outcomes (such as salivary flow and demineralization); anatomical and microbiological outcomes of patient teeth and gums (such as probing depth and presence of oral pathogens); and the patient's sensory outcomes (such as level of pain and post-treatment parathesia results). While measures exist for most of these outcomes, they are rarely routinely assessed or recorded. One exception includes the anatomical status outcomes related to periodontal disease, which is often recorded by dental practices and could be considered useful.

- Clinical Dimension – Considers the *survival* status outcomes (such as tooth surface and state of restorations); mechanical outcomes (such as margins, occlusions and color matches); diagnostic outcomes (such as the presence of caries or periodontal disease); and functional status (such as how well the patient can chew, speak and swallow). For these clinical outcomes, some are routinely assessed and recorded, and measures are available; however, they are subjective. As such, trying to standardize based on subjective measures is problematic because there is too little consistency across the data.

- Psychosocial Dimension – Considers *satisfaction* (how patients feel about their dentist and treatment); *perception* outcomes (how patients perceive their own aesthetics and their own oral health); *preferences* outcomes (value patients place on various health states and events); and oral health-related *quality of life* outcomes (patient's view on how their oral health affects their daily activities and social life). In terms of measuring psychosocial outcomes, while *satisfaction* data is routinely collected by dental practices and plans, the evaluation instruments are often inconsistent and unreliable. Measures for *perceptions* and *preferences* are currently available only in research literature; and although *quality of life* measures have now been carefully developed, they are not yet being used much by practices or plans.

- Economic Dimension – Considers the *direct costs* (premiums and out of pocket expenses); and the indirect costs (added expenses of child care, transportation, time away from work). While direct costs are calculable, indirect costs are always estimates and vary dramatically based on a patient's economic status, which makes this measure more difficult. However, every patient needs and

expects good value for their money, so economics undoubtedly play an important role in their perception of quality.

- Adverse Outcomes Dimension – Considers *incidents to be avoided* including serious adverse events resulting in hospitalization or death, as well as lesser adverse events such as injury, misdiagnosis, post-operative infection, or failure of treatment. While incidents may be recorded in patient records or even dental board records, details may be difficult to identify or access. There might also be mention of adverse events in consumer report forums, however, as a measure they are often unreliable as they tend to be incomplete and subject to extreme bias.

For assessing patient care outcomes, these dimensions cover quite a number of variables, yet not all of them have reliable measures available. Of all the criteria, the most practical elements that can be measured accurately include:

- Biological – *anatomical* (probing depth and attachment loss) and sensory (pain prevalence)
- Clinical – *survival* (caries incidence, tooth loss, restoration survival) and *diagnostic*
- Psychosocial – *satisfaction and quality of life related to oral health*
- Economic – *direct costs*
- Adverse Outcomes – *serious adverse events and post-operative events* (frequency)

Two "Off the Shelf" Measures for Immediate Use

Dr. Bader highlighted two psychosocial measures that he believes are "ready for prime time use" in dental practices (after some modifications) to evaluate patient care outcomes:

- Patient experience measures – The CAHPS (Consumer Assessment of HealthCare Providers and Systems), a free, public-domain measure was developed by the federal government in collaboration with providers and patients, as well as insurance carriers, purchasers, and regulators. The CAHPS includes standardized questionnaires for specific age groups and populations, and has undergone extensive testing with consumers to validate that the information collected is meaningful. It uses very detailed protocols for sampling, collecting data, analyzing and reporting to ensure solid, standardized results for establishing useful benchmarks that can easily be understood by providers, patients, and purchasers.

  – CAHPS Dental Survey – One component of the CAHPS is a 39-question survey in which patients can rate (from 0-10) their oral health care experience, including their dentist, the care they received, and their dental plan. The survey strives to be more objective by framing questions in terms of how often certain behaviors or events occur, rather than how much they like this or that. For example, to evaluate their dentist, patients can rate factors such as how often their provider listens and explains things clearly, is courteous and respectful, and spends enough time with them. In looking at their overall care, patients can rate factors such as how often staff attends to their comfort and is available for emergencies; how often they can get convenient appointments, or have to sit through waiting room time longer than 15 minutes. To assess their dental plan, patients can rate factors such as how often the plan covers what needs to be done; if they found a provider they like; if the plan is worth the cost and if they would recommend it. For use in dental practices, the section asking patients to rate their dental plan will require some alteration, with subsequent testing.

Find CAHPS online:

https://www.cahps.ahrq.gov

- Oral health quality of life measures – Dr. Bader cited seven quality of life measures ready for use, each designed for a specific audience. They have been developed over the past 15 years and include:
  - GOHAI - Geriatric Oral Health Assessment Index
  - OHIP – Oral Health Impact Profile (49-question survey)
  - OHIP-14 - Oral Health Impact Profile (shorter 14-question version; widely used and translated into several languages)
  - COHIP – Children's Oral Health Impact Profile
  - OIDP – Oral Impacts Daily Performance
  - OHQoL-UK – Oral Health Quality of Life, developed specifically for use in the United Kingdom, and considered invalid for use anywhere else
  - ECOHIS – Early Childhood Oral Health Impact Scale, which looks at early childhood caries and how it impacts the whole family

Dr. Bader summarized the benefits of these psychosocial outcome measures by noting that they are readily available and relatively inexpensive to administrate, and best of all they are fully standardized to provide for accurate data comparisons and quality benchmarking.

Case Study: Oral Health Quality Assessment Using Clinical Outcomes

To illustrate how patient care outcomes can be used to help measure quality in oral health care, Dr. Bader detailed research in which his team used the clinical outcomes dimension to assess aspects of the clinical performance of dental care delivery organizations. He noted that these measures can still be used for data collection and also serve as a model for the development of new measures.

When the team began their 2-year project, their goal was to develop measures for three key areas of dental care delivery:

- Effectiveness of Care (EoC)
- Use of Services (EoS)
- Access/availability of care (AoC)

Developing and Evaluating Measures

To get started, they developed measures and specifications with the help of a steering committee comprised of senior managers from managed care dental plans and an advisory committee that included providers, purchasers, and public health program executives. Central to this process were the guiding themes that the measures must be valid, reliable, and relevant to dental plans; that the values would change in response to changes in provider behavior, with the hopes of motivating quality improvements; and that purchasers would understand the implications of the measures (they had to include the kinds of variables that would appeal to purchasers as plan leaders wanted to use the measures as a marketing tool).

The team developed preliminary measures using administrative data of managed care plans, but they realized they needed to develop another set of parallel measures that could be completed using chart audits from private dental practices.

Design criteria for measuring effectiveness of care (EoC) were that the measures be based on important outcomes or evidence-based procedures that were associated with a substantial beneficial effect. Additionally, the measures needed to focus on outcomes for those procedures used by a large majority of the dental plan's enrollees; and the measures had to be risk-adjustable to account for different levels of disease incidence in the populations of each participating DHMO.

The next vital step was to deploy the measures at DHMO pilot sites such that the needed data, including diagnostic codes, were immediately available in their administrative databases. Additionally audit-based measures were used at beta test sites such as PPO practices and public health dental clinics where data could be obtained from patient charts.

Effectiveness of Care Measures

The first of seven EoC measures classified patients based on the incidence or risk of caries and periodontal disease in their record, and whether or not providers performed a disease assessment on them.

- Caries activity and caries risk – To track caries activity, they looked at the incidence of current and recent lesions; and to assess risk, they measured factors such as lesions, fluoride status, dietary habits, oral hygiene and so on.
- Periodontal disease – Tracking disease status was easy, simply by noting whether a patient had ever received periodontal treatment; had a diagnosis for the disease; or had a probing depth of 5+mm.

Additional EoC measures then tracked the percentages of disease assessment performed for patients depending on their level of risk, from those with active caries and periodontal disease to one disease but not the other to no disease present. An important side note was that the subset of the population who had never been assessed were grouped with the low-risk patients, which created an artificial reading that could have resulted in potentially high costs coming out of a group where the costs should be low. As such, the team expected this feature would press plans to include risk assessment for all patients so insurers, employers, and providers could better anticipate the cost and care needs.

"These measures offer information that nobody has. If you walk into your dentist's office and ask them 'what percentage of your patients get new caries every year?' they have no idea. Isn't that something you might want to consider when you're talking about the quality of a practice?"

– Dr. James Bader

Once patients were classified by risk level, EoC measures then assessed whether caries active or caries risk patients had received appropriate preventive treatment, as an indicator of both effectiveness and appropriateness of care. Across patients of all risk levels, EoC measures also tracked the proportion of periodontal patients who received perio maintenance; the percentages of patients whose condition improved vs. worsened; and, again for all patients, the percentage experiencing tooth loss. Dr. Bader noted that for use of the data based on administrative data the dataset needs to include caries diagnostic codes and periodontal probing data, while the parallel EoC measures based on chart audits do not need these data.

So, what did the EoC measures tell them? In tracking patients with active caries, the results revealed an alarming disparity in preventive care for different age groups. Among children, as many as 81% received preventive treatment, yet typically, only 11-18% of adults with caries got even the minimum of one fluoride treatment per year. This was a disappointing statistic, given it is a treatment covered by all the dental plans used in the study, plans which, incidentally, "*prided themselves on supporting preventive dentistry*."

Results were more promising across adults with periodontal disease, wherein 79-86% were receiving some type of maintenance treatment. Based on chart audits, as many as 50% of those adults experienced improvement, yet 25-41% of all patients saw some deterioration in their periodontal health.

Use of Services Measures

Dr. Bader's team also developed measures to assess use of services (UoS), which focused on a large base population of patients, and were required to spotlight important services that would have a substantial beneficial effect, and that would reflect plan benefits and the associated "style of practice" to differentiate between plans.

The UoS measures focused mainly on ratios of services such as preventive vs. restorative; castings vs. large direct restorations; and endodontic treatments vs. extractions. Additionally, the measures tracked the percentage of third molar (wisdom tooth) extractions among 16-24 year olds.

Results showed that across three dental plans, ratios for preventive vs. restorative services for adults varied from 1.8:1 to 4.3:1. Where the plans differed greatly was in the ratio of castings vs. direct restoration, where adults in one plan received only one casting for every 10 direct restorations, whereas in another plan the ratio was about 1:1. Another result showed a ratio of as many as two teeth extracted for every endodontic treatment. Another difference across plans was evident in the data on third molar extraction. Very few patients got the extractions and among those who did, there appeared to be a clear difference in treatment philosophy between the plans: extraction only on one side vs. one arch vs. removing all of the wisdom teeth.

Access/Availability of Care Measures

Although the research team did not end up conducting the assessments for access/availability of care (AoC), they did develop measures that could be used for such assessments. The AoC measures were defined primarily as a way to assess some key infrastructure problems in the plans. For example, one measure was designed to track the percentage of enrollees receiving an examination within a year, which expressed utilization the way the DHMO's preferred it. Another measure tracked the percentage of plan providers who were accepting new enrollees in order to determine how easily people could access a provider to receive care. A further measure was designed to track the percentage of providers still active in the plan one year later, as an indirect measure of a plan's ability to afford continuity of care.

The Case Study in Summary

Overall, Dr. Bader's research developed and validated a number of valuable metrics for providing the dental industry with very useful information about patient care quality. The measures address simple questions that purchasers, patients, and carriers ought to know, such as what proportion of patients get new caries or have changes in their periodontal disease status; how many patients are losing teeth; and what is being done in preventive services to improve these outcomes. These measures can be used to describe the care provided by a dental care plan overall, or by any individual provider or group of providers within the plan. Utilizing these measures enables dental professionals to identify and validate patterns in patient status and care, which provides insight into areas for improvement. As we build solid data, we have the stepping stones for improving quality.

What else can be done?

In closing, Dr. Bader highlighted some key strategies that he believes are "ripe for development" and can help advance patient care quality, including:

- Strengthen dental school curricula to focus on patient care quality – We need to place greater emphasis on clinical training that focuses on patient care effectiveness and grade students based on their demonstrated understanding and abilities. We also need schools to start using diagnostic codes.
- Engage professional organizations to promote adoption and use of diagnostic codes – The dental profession needs to develop a code set that enables us to easily identify the health of patients in a way that's useful for monitoring treatment effectiveness and appropriateness. Dr. Bader suggested enlisting the ADA as the leader to drive this change as they carry the most weight; however he noted there has been resistance in terms of the ADA's requirements to own and monetize the code set.
- Improve methods for achieving change in practitioner behaviors – Facing the same challenges as the medical community, the dental profession needs to develop effective levers for driving change. Without changes in practitioner behaviors, we cannot truly change patient care quality.
- Engage purchasers of care plans – As one of the potential levers for change, we need to urge purchasers to demand "proof of value" and to expect the use of evidence-based guidelines and diagnostic codes. "*It is an issue of educating purchasers as what they ought to expect.*"
- Conduct more outcomes research – We need much more evidence on what actually works and what doesn't in everyday dental practice so we can establish effective treatment guidelines. As a key example, we need more research on emerging technologies so we can develop measures that help us determine whether these new methods are actually making a difference in the quality of care. As in medicine, many dentists rapidly adopt new, expensive technologies, which we sometimes later find produce outcomes no better than existing, more cost-effective solutions. This research helps us ensure we are always acting in the best interest of the patient.

Robert D. Compton, DDS
Vice President, Delta Dental of Massachusetts

Quality Care – A Payer's Perspective

For the past decade, Dr. Robert Compton has been a leader in Delta Dental's efforts to improve oral health and helped create their oral health foundation, research dental center, and oral health institute. Dr. Compton began by stating that when we really want to identify progressive strategies in advancing quality, we need to look at medicine –because that is where most of the progress is taking place. In his work, Dr. Compton continually examines what is happening in the medical community and explores ways to apply it to the dental profession.

Quality is a context-sensitive concept –for providers, quality may focus primarily on technical excellence; yet for patients, insurers, employers, etc. – each have their own unique perspective of what quality means. For this year's conference, Dr. Compton introduced the insurer's perspective, and suggested that the best strategy will be for everyone to come together and share their perspectives so that together, we can work to improve quality care in ways that are meaningful across the board.

> *"I used to say that, if you want to know what dentistry is going to be doing in five years, look at what medicine is doing today. Now I feel we are 15-20 years behind, and there is a lot of work we can do to catch up."*
>
> *– Dr. Robert Compton*

Defining "Quality of Care"

As a starting point, Dr. Compton referenced the Institute of Medicine's definition for "quality of care":

> "*The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge*."

While each patient responds differently to care, improving quality on many dimensions increases the likelihood of more positive outcomes. Within this definition, the concepts of measurement and knowledge are highly important as they point to delivering evidence-based care as a key to quality. To accurately know if you are improving quality, you need to measure where you start, and measure again after the intervention to track the patient's status – have they improved, stayed the same, gotten worse?

A Historical Look at Improving Quality

When we look at how to define and improve quality, it is valuable to review some historical context. Dr. Compton emphasized that if we really want to understand how we are doing today, we need to look at how we got here. He outlined the evolution of quality improvement through the decades as follows:

- 1960's: Significant variability in care – Dr. John Wennberg's famous studies in the 1960's (in Vermont, Maine, and Iowa) demonstrated an alarmingly disparity in clinical practice which suggested that the type of care one received was more dependent on where they lived than the type of disease they had. For example, in some communities 8% of children received tonsillectomies while in others 70% of similar populations of children had the procedure. From an insurer's perspective it is important to know which population is better served when deciding how to spend limited healthcare dollars for there are not enough resources to meet the needs of all. In trying to answer that question, Wennberg's team found there was no evidence telling us which treatments were better. This search for the truth has led us towards the evidence-based

clinical guidelines that we use today. Now, insurers such as Delta Dental are focusing on evidence-based care as a means to identify the most effective and beneficial treatments for each diagnosis, which helps reduce the "illogical treatment variability." Furthermore, clinical guidelines based on scientific evidence help ensure a consistent quality of care.

- 1970's: The Structure-Process-Outcomes Triad – The next leap forward came through the work of Dr. Avedis Donabedian, MD, MPH who claimed that to improve quality in health care we must look at three key components: structure, process, and outcome:
  - Structure *is a Quality Indicator. It represents the things we need in order to provide care. For example, we need well trained providers, appropriate equipment, sterilization protocols and access to the delivery system*
  - Process *is also a Quality Indicator* and represents what we do to provide care. It includes treatment procedures; how we communicate with patients; how we gather data and develop treatment plans
  - Outcome *is a Quality Validator* and represents the end result of the care provided. It includes not only health status but also overall patient satisfaction; attitudes about their treatment; and how well we educate them about their health. Additionally, an important outcome is behavioral changes that contribute to improving health status.

- 1990's: Standards & Measurements – The National Committee for Quality Assurance (NCQA) was created in 1990 and built upon the work of Donabedian. Although outcome measurements eluded the '90's, they made significant progress toward ensuring consistency in the *Quality Indicators*. For example:
  - To improve structure*:* They developed credentialing standards to verify whether healthcare networks have what they need to deliver quality care. These structural elements include training, licenses, equipment, sterilization techniques and other things that help increase the likelihood of achieving desired outcomes.
  - To improve process: They developed the *Healthcare Effectiveness Data and Information Set* (HEDIS) measures. These measurements track healthcare processes such as vaccinations and mammograms, which increase the likelihood of improving health outcomes.

A 1997 Reader's Digest dental care survey tracked one patient who visited 50 dentists to explore the variability in treatment approach and cost. Assessments ranged from $460 (from a dental school) to $29,850 – and every price in-between. Not all of these can be best for the patient, so how do they know which one is right for them?

- 2000's: Outcome Measures – As we move into measuring outcomes, we now have a better understanding of how structures and processes can affect outcomes. For example, a bad outcome of an increase in hospital-acquired infections would cause a hospital to examine their structures (do they have the right sterilization protocols and training in place) and are they doing the right processes (washing their hands and spore testing autoclaves). All this requires measurement and knowledge so that we can continually improve quality.
- Today: Online Access to Evidence-Based Guidelines – Healthcare professionals can now access numerous resources on the Internet for evidence-based clinical guidelines. One valuable source is the central repository

EBC Guidelines Online

- National Guideline Clearinghouse (www.guideline.gov)

- ADA Center for Evidence-Based Dentistry (ebd.ada.org)

- American Academy of Periodontology (www.perio.org/resources-products/posppr2.html)

- American Academy of Pediatric Dentistry (www.aapd.org/media/policies.asp)

at www.guideline.gov, which provides over 1,900 sets of guidelines for medical diseases; over 1,800 on medical analytic and diagnostic devices; and even about 300 for behavioral disciplines. By comparison, dentistry is poorly represented, with only about 45 sets of guidelines. However, many dental care guidelines and scientific papers are available online such as the websites for the ADA, the American Academy of Periodontology, and the American Academy of Pediatric Dentists.

The 3 R's of Measuring Quality: Research – Review - Recommend

Dr. Compton introduced a model developed by the Research Triangle Institute of North Carolina, based on an earlier report on systems for rating the strength of scientific evidence (West, et al. 2002). This model defines an approach for measuring quality based on evidence using three sequential efforts, conducted by three separate groups of relevant experts:

- Research Studies – The model starts with researchers who conduct clinical trials, case control studies, cross-sectional studies, and case series' to determine what is working and what it is not working across all aspects of care delivery.
- Systematic Review – Next, a different group gathers all the research around a specific topic and conducts a thorough review to assess the quality of the studies. They appraise the evidence; develop a qualitative and quantitative analysis to synthesize all the data; and publish a paper summarizing their findings about the effectiveness of a particular treatment for a specific condition.
- Clinical Guidelines & Recommendations – A third group then builds on those systematic reviews to develop guidelines. Along with the ADA, other dental organizations are emerging, such as the American Academy of Pediatric Dentistry and the American Academy of Periodontology, which examine these systematic reviews, and if the evidence is strong enough for specific treatments or protocols, they write a guideline or recommendation for it.
- Reconcile Performance against Clinical Guidelines – Taking this model a step further, a fourth entity has emerged to help promote accountability as various groups are now examining sets of guidelines and comparing them to how care is actually being delivered, measuring whether patients are getting treated according to the evidence-based recommendations. For example, a 2003 study noted that while clinical guidelines were met for 65% of hypertension patients, only 45.4% were met for diabetes patients; only 39% for those with pneumonia, and only 10.5% for patients with alcohol dependence. (Rand, New England Journal of Medicine 2003)

What Does "Evidence-Based" Really Mean?

A traditional medical definition for evidence-based care (EBC) cites that:

> *"Evidence based healthcare is based on a set of principles and methods intended to ensure that to the greatest extent possible, decisions, guidelines, and other policies (such as benefit coverage) are based on and consistent with good evidence of effectiveness and benefit." (Eddy 2005)*

The American Dental Association has fine-tuned this approach for oral health care guidelines to include the dentist's clinical expertise and the patient's treatment needs and preferences. Dr. Compton noted that while insurers agree that these additional factors are valuable in evidence-based decision making, they are less relevant for driving policy change. From an insurance or health benefit company perspective, the focus remains on the scientific facts of what is most effective and beneficial for positive outcomes.

Furthermore, the IOM's landmark book "*Crossing the Quality Chasm*" states that evidence-based care should include decision making based on the best available scientific knowledge, and that care should not vary "illogically" from one clinician to another, or from place to place.

Additionally, the IOM recommends the need for transparency (and the health literacy emphasized earlier by Dr. Richard Carmona) by which patients and their families are given all the information they need to make informed decisions when selecting a health plan, a clinical practice, and available treatments.

Delta Dental's Approach to Measuring Quality

Dr. Compton explained that, currently, most performance measures look at *underuse* of preventive or diagnostic services as an indicator of the need for quality improvements to increase the effectiveness and appropriateness of care. With this in mind, Delta Dental conducted an initial quality assessment by measuring across 109 providers and their members to determine the percentage frequency of preventive cleanings across various populations such as children, patients with prosthetics, and those with periodontal disease. The results were alarming. A surprisingly large number of providers had patients who were receiving preventive care less than 40-50% of the time. These findings prompted Delta Dental to explore quality measures in greater detail, and ways to partner with dentists to improve the quality of care.

In the past few years, Delta Dental has been conducting a pilot study of six major accounts, with a combined population of about 250, 000 members. They discovered that 30% of the members consumed almost 75% of the benefits. As such, Delta Dental decided to focus attention on that subset of the member population to find out how to get them healthy and keep them that way. They examined a number of factors:

Fewer than half of the highest risk members with periodontal disease got cleanings twice a year. That signals a critical need to increase awareness about the importance of good oral health on systemic health and the value of prevention.

- Disease Burden Assignment – Using a 3-year history of claims, they categorized members according to the amount of treatment for disease. For example, one or two restorations was considered a moderate disease burden and three or more was considered high. Members who had had a scaling and root planing or osseous surgery were considered to have periodontal disease.
- Cost of Disease and Preventive Care – Not surprisingly they found that members with disease burden used a disproportionate amount of benefit dollars (periodontal patients consumed around nine times as much as low disease burden members). They also discovered that a significant percentage of the members with active disease were not receiving adequate preventive care.
- Performance against Fluoride Guidelines – Based on ADA Fluoride Recommendations, Delta determined that any child who has had cavities in the past three years is at risk for caries and should have at least two fluoride treatments per year. Yet data showed that although nearly 95% of moderate to high risk children (age 6-15) received a cleaning, only 85% had received one fluoride treatment and only 45% had received the recommend two treatments. Note these results were the same as those for low-risk children, which indicates that preventive treatment may be more determined by benefit coverage than the child's risk status. Additionally, with older kids (age 16-18), the variation from the recommended guidelines were even greater: only about 45% received one fluoride treatment and less than 20% received two. As a result, Delta Dental explored why this disparity might be happening. At first they suspected kids were simply saying no when offered the fluoride, but focus groups revealed it was more a matter of provider confusion about benefits coverage. As such, the insurer's quality improvement strategy included a campaign to educate providers and patients on their preventive services coverage and promote the use of those services to improve oral health.

- Improving Quality for Periodontal Maintenance – In an effort to improve quality for at-risk patients with periodontal disease, Delta Dental has been aligning benefit coverage to support recommendations from the American Academy of Periodontology. Their position paper states that patients with a history of periodontitis should get four cleanings per year to decrease the likelihood of progressive disease. Although many plans now cover these additional cleanings, thereby lowering the financial barriers, data show that less than half of these patients get more one cleaning per year. As such, there is a significant opportunity for providers to improve health outcomes by increasing efforts to promote prevention among at-risk patients. Opportunities exist to create innovative programs such as disease management and wellness programs to ensure that at-risk patients receive effective treatment according to evidence-based clinical guidelines.

Although many plans now cover four cleanings per year for patients with a history of periodontitis, only 6% of adults are getting it done; only 18% get three cleanings per year, and only 43% get two per year.

Partnering to Improve Quality

As a proactive response to motivate preventive care and ensure that at-risk patients do not "fall through the cracks", Delta Dental has been developing a "Prevention Report for At-Risk Children" that will be available to providers on a quarterly basis starting in 2010. The report, based on claims data, lists each young patient and the number of restorations in the past three years as an indicator of risk, along with the number of cleanings and fluoride treatments they have received in the past year. It provides an effective at-a-glance view of which patients need more preventive care. To optimize the usefulness of the report, Delta has conducted focus groups with dentists, gathering helpful suggestions such as including the patient phone number so practice staff can easily contact the family to encourage a dental visit.

Similarly, Delta Dental is developing a disease management report to highlight data and prevention trends for high-risk patients with periodontal disease. Providers will be able to reference this report and easily identify where they need to be more proactive about reaching out to and educating patients who are not getting the preventive care they need. Additionally, Delta is partnering with health coaches trained in disease management behaviors, who work with high-risk patients to help them with lifestyle changes that can improve their oral and systemic health.

As another quality improvement strategy, Delta Dental has also implemented a performance measurement report for their member accounts, enabling companies to easily track healthcare trends across their employees, and view comparative benchmarks from similar organizations. This report, which references evidence-based clinical guidelines, includes data on members such as health status, if needs are met, and how well chronic disease and prevention is being addressed.

These new quality strategies are in their first years, and Delta Dental hopes they will make a significant difference by motivating providers and employers to become more active participants in promoting prevention as a means to improving overall patient health. Dr. Compton emphasized the hope that their efforts --such as giving providers specific information to motivate prevention outreach, and supporting patients with health coaches-- help drive whole trends of improvement.

David Gesko, DDS
Dental Director and Senior Vice President of HealthPartners, Inc.

Best Practices & Metrics in Oral Health

Joining this year's Institute for Oral Health conference was Dr. David Gesko, a leader at HealthPartners, Inc., a large Minnesota-based medical and dental collaborative organization. Their dentistry components include HealthPartners Dental Group, with 17 clinics in the greater Twin-Cities area; the HealthPartners PPO network supported by 2,000 dentists around the state; a dental plan; and an arm for medical education and research including development of evidence-based measures and clinical guidelines. Dr. David Gesko spent 20 years in dentistry with Kaiser Permanente and the VA before joining HealthPartners as Dental Director in 2008. At the 2009 IOH conference, Dr. Gesko discussed the advantages of defining and measuring quality by highlighting some of the progressive programs that HealthPartners has put in place.

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> *"If we don't define quality metrics ourselves, politicians and others will take over. That's not the outcome we want because then it's up to anyone's guess about what is best."*
>
> *– Dr. David Gesko*

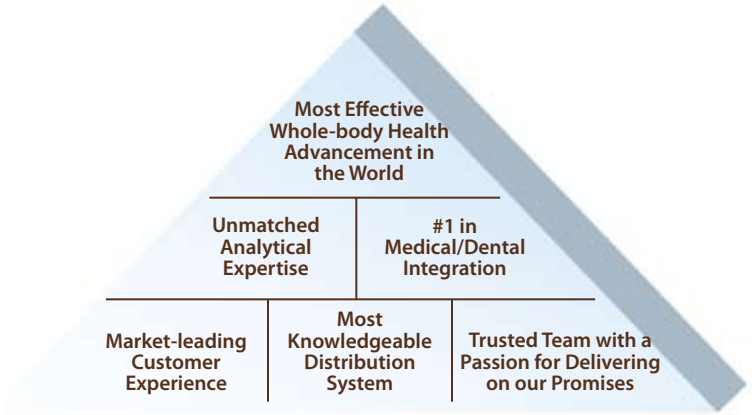
A Strategic Vision for Quality

Dr. Gesko outlined the HealthPartners vision statement and strategy to illustrate how their foundational premise drives their everyday practice.

> "*Our vision is to be the most trusted provider of Health Care, Health Promotion, Healthcare Financing and Healthcare Administration in the country*."

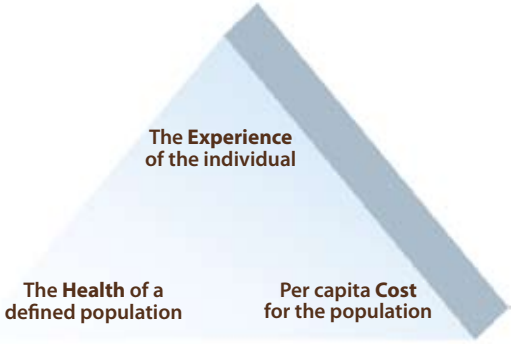
Furthermore, HealthPartners has defined a pyramid of objectives for achieving their vision. They model their work on the Institute of Medicine's "Triple Aim" for healthcare quality:

HealthPartners Strategic Pyramid



IOM Triple Aim

To simultaneously optimize...



Redesigning Care to Produce Triple Aim" Results

To actualize the IOM's Triple Aim, Dr. Gesko believes it is about improving quality by design, rather than continuing forward by default based on what we already know and how we are used to functioning. Through rethinking our care design methods, we can produce results that achieve the "triple aim" of optimizing patient experience and cost across whole populations – because, "*that's the end in mind that we're all looking for. So how do we back up and do things that will get us there?*"

To that help them achieve Triple Aim results, HealthPartners focuses on four care design principles:

- Consistency - Reliable processes to systematically deliver the best care. While individual practitioner judgment is important, it is vital that providers (and even better across the profession) develop consistent processes the streamline care to remove the "illogical variation" that too often appeas when we measure actual care delivery.
- Customization - Care that is customized to individual needs and values. As an example of the current disparities, data presented by Dr. Robert Compton showed that many high-risk periodontal patients were receiving the same level of preventive care as low-risk patients, which is neither appropriate nor effective for their specific condition. Unfortunately, many providers feel their hands are tied by limits in available benefits and fall back on developing treatment plans based on coverage rather than patient needs.

> *"Dental insurance is a wonderful thing, but coverage should not drive your treatment decisions."*
>
> *– Dr. David Gesko*

- Convenience - Easy access to care, information and knowledge for patients.
- Coordination - Coordinated care across clinic sites, specialties, conditions and time. Even when serving different cultural demographics, it is important that the overall approach includes effective collaboration and communication.

A Quality Measurement Success Story

As a model of how measures can make the business case for improved quality, Dr. Gesko highlighted the successful results from the HealthPartners medical group in a study focused on diabetes patients. The quality measure, which spanned four years from late 2004 to early 2009, tracked progress in terms of the percentage of patients with "optimal diabetes control", the total cost index, and the percentage of patients with high satisfaction who would recommend HealthPartners.

Their most dramatic improvement was in optimizing diabetes control. In Q4 2004, only 9% of patients were in optimal condition, and yet four years later they had increased this number to 34%. HealthPartners medical group also saw a considerable decrease in total costs. They compared their total cost index with the statewide average, which cited <1 % as being better than the network average. HealthPartners reduced costs from 1.0005% to 0.9200%, which looks like a small increment but amounts to a great deal of money. Furthermore, their patient satisfaction index remained steadily near 100% and in fact, increased one percent over several years.

> *"This medical success story is an example of what dentistry needs to do –simultaneously deliver a great experience, for a good cost, and prove that we are getting better health outcomes."*
>
> *– Dr. David Gesko*

Practice Principles for Achieving Quality

Clearly, the concept of quality has many dimensions, and the IOM's "Triple Aim" provides a simple but effective model to use as a guide: deliver an optimal patient experience that is cost-effective and which proves that better health outcomes are being achieved. To help providers get there, Dr. Gesko discussed the HealthPartners Dental Group (HPDG) "practice principles" and the related solutions they have implemented, which are detailed in the following sections.

- Delivery of care based on evidence-based care guidelines
- Focus on disease management, risk assessment & risk reduction
- Preservation of hard and soft tissue
- Integration of a medical model into dental care
- Maintaining & improving overall cost-of-care

Delivery of Care Based on Evidence-Based Care Guidelines

To promote evidence-based care, the ADA urges providers to acknowledge some key differences in practices that use evidence-based guidelines versus those that do not:

Evidence-Based Practice	Traditional Practice
Uses the best evidence	Unknown basis of evidence
Systematic appraisal of quality of evidence	Limited/incomplete appraisal of quality of evidence
Objective, transparent, less biased	Subjective, opaque, potentially biased
Acceptance of levels of uncertainty	Black and white conclusions

HealthPartners Dental Group (HPDG) has developed a number of clinical guidelines, validated with systematic reviews, for caries, periodontal risk assessment, oral cancer, endodontic and third-molar care, and treatment planning. These guidelines are available on the National Guideline Clearinghouse website (*www.guideline.gov*).

Additionally, the Institute for Clinical Systems Improvement "champions the cause of health care quality" by developing care guidelines and publishing them online (*www.icsi.org*). Providers can take a vital step forward in improving quality by using and holding themselves accountable for these types of care guidelines.

"Many dentists say, 'In my hands, this treatment or approach to care is what works.' But that's not the way we should be providing care when we have got such effective resources to draw from."

– Dr. David Gesko

A Multi-Dimensional Approach to Research

In developing clinical guidelines, HPDG takes a multi-dimensional approach, drawing on numerous resources to provide a more well-rounded perspective on what constitutes quality care. Guidelines are based on a range of research from lab science and academic clinical trials to practice-based findings and community-based studies. HealthPartners collaborates in a national Practice-Based Research Network (PBRN), which is a group of practices that is affiliated to investigate research relevant to clinical practice. Their network's current seven-year agenda, funded by a $75 million grant, is to conduct 16-22 short-term clinical studies that focus on effectiveness

Learn more about the Dental Practice Based Research Network > Visit www.dpbrn.org

of oral health treatment and disease prevention, with topics such as caries restoration, root canals for diabetics, and osteonecrosis of the jaw. They will also work to define guidelines for achieving "*clear and clinically meaningful outcomes*."

Focus on Disease Management, Risk Assessment & Risk Reduction

To help reduce risk of disease while increasing patient health and satisfaction, HealthPartners Dental Group (HPDG) has implemented solutions that enable them to track valuable data while improving care delivery, including:

- Electronic Dental Records – All participating dentists leverage the benefits of an electronic dental records system that not only tracks data on patients but helps to guide care delivery protocols. For example, when inputting risk assessment data (for caries, periodontal disease, or oral cancer), the tool can prompt clinicians to do certain procedures by providing recommended interventions and related research. These electronic records are highly valuable for extracting data to measure the effectiveness of care they deliver. For example, they not only track the number of risk assessments performed but coincide that data with interventions performed to get a clearer picture of how often they are giving the appropriate care to medium and high-risk patients.
- Patient-Friendly Personal Care Report – As an additional risk reduction strategy, in mid 2008 HPDG introduced the "Personal Care Report", a chart given to patients —written in patient-friendly language— that highlights their levels of risk for caries, periodontal disease, and oral cancer, and provides recommendations on how they can reduce their risk. As HPDG also measures patient satisfaction, this report, which has proved to be extremely popular with patients, supports a positive perception of quality, reinforcing the patient's sense that their dentist is offering them helpful advice on what they can do to improve their oral health.
- Measurement of Patient Perception of Quality – In 2008, HPDG surveyed patients on a variety of factors to determine their perceptions about the quality of care they have received. A sampling of criteria includes whether they feel they got enough time with the dentist; how well their condition was explained and how they should handle symptoms; if they got a chance to ask questions; and so on. The survey also looked at the patient's perception of how well their risk levels were explained to them, and whether or not the clinic provided information that enabled them to make good decisions about their oral health care. The survey results had a dramatic motivating effect on HPDG providers; for example, with regard to explaining disease risk levels to patients, their "problem score" dropped from 27.1% to 14.8% in less than a year.

Focus on Disease Management, Risk Assessment & Risk Reduction

To help patients understand caries and make better decisions about their oral health care, clinicians at HealthPartners Dental Group have found it helpful to educate patients on the typical "life cycle" of a decaying molar and the associated costs. By explaining the cost and impact of a tooth's condition over time, providers can promote prevention and early treatment as a cost-effective strategy. For example, a healthy tooth can be maintained for about $10 per year, whereas a decayed molar might eventually cost about $6000 over time. Starting with a filling at about $100, as the tooth is now weakened it might later need a crown (~$1000). If the crown is not well cared for, they might need a root canal (~$900), and if they eventually lose the tooth, an implant raises the pricetag considerably (~$4000). Dr. Gesko emphasized this is not about withholding care, but helping patients understand the value proposition of maintaining good oral health. It also helps providers move away from the "drill, fill, and bill" mentality and adopt a more prevention-oriented paradigm.

Integration of a Medical Model into Dental Care

An important part of improving quality in oral health care is to better integrate dentistry with medical care. At HealthPartners Dental Group, the electronic dental records help drive reliable input of diagnostic codes, which is a critical factor in evidence-based care because these codes help validate why certain types of care were performed (as opposed to simply relying on provider judgment). Furthermore, for each record, the system alerts clinicians if the patient has known medical conditions, and provides direct access to their internal website's resources of medical care guidelines. In this way, dental providers can deliver "integrated care," improving their oral health care strategies for patients with chronic conditions such as diabetes or heart disease. Additionally, these system prompts and medical resources help ensure safer dental treatment for poly-medicated patients, helping to avoid adverse events.

"Our goal is to push patients toward the other end of the disease continuum, by predicting disease through early risk assessment, and intervene with at-risk patients such that we reverse the trend."

– Dr. David Gesko

Looking at the typical disease process continuum, from no/low risk all the way to advanced disease and salvage, Dr. Gesko noted that much of dental care and dental benefits focuses on the high risk end of the spectrum. At HPDG, they are taking proactive steps, such as early risk assessment and partnering with their medical colleagues, to create greater opportunities to intervene with preventive procedures before costly disease occurs.

Maintenance & Improvement of Overall Cost-of-Care

Focusing on the aforementioned best practices, HealthPartners Dental Group is striving to make quality dental care more cost-effective for patients, providers, and purchasers. One example is a pilot program for a new provider payment model using reimbursement based on relative time units (RTUs). This approach has a two-fold agenda: to promote appropriate care in terms of prevention of costly disease and to eliminate possible incentives to over treat. Think about the Patient Personal Care Report and "molar lifecycle" described earlier --it takes time for dentists to provide that education to patients, yet they cannot bill for it because there are no associated codes. However, this is time well spent in terms of patient health, patient expense, and dental plan expense. As such, to provide incentive for dentists to invest time on preventive measures, HPDG has implemented an RTU "rate" that covers care not associated with specific codes. It works rather like a consultant or lawyer's hourly rate, which may cover a wide range of services and focuses strictly on time spent. With the RTU model, dentists are paid the same amount for risk assessments and patient education as they are for any treatment procedure such as preparing crowns.

Additionally, HealthPartners Dental Group frequently tracks their total cost of care in comparison with the wider HealthPartners PPO network. The promising results show considerable savings that help prove that the HPDG's proactive and progressive strategies are making a real difference on a cost level as well. For example, in comparing claims costs, HPDG's plan and patient liability shows a 14.3% savings over the PPO network; plan liability shows 10.5% savings; and patient liability measures show a 29.2% cost savings.

Multiple Best Practices to Achieve a Central Goal

In closing, Dr. Gesko highlighted how the HealthPartners strategy of using multiple best practices helps drive successful results in their overarching goal to improve oral and systemic health outcomes. They are actively improving the quality of care through a portfolio of best practices, including: use of accepted metrics for quality and diagnostic codes; early risk assessments and prevention education; provider performance measurements and evolution in the reimbursement system; integration with medical care; and an ongoing investment in dental research.

Timothy Ward, MA, DDS
Assistant Under Secretary for Health for Dentistry, Dept of Veterans Affairs, Washington DC

Improving Quality in Oral Health for Veterans

At the 2009 conference, Dr. Timothy Ward shared the transformational quality improvement program he helped launch and directs for the VA Office of Dentistry. An oral surgeon by training who spent most of his career in clinical practice, about four years ago Dr. Ward sought new opportunities where he might make a more substantial difference. In his role at the VA, he now leads their patient-centric mission to advance quality through efforts such as defining measures for monitoring quality and publishing clinical guidelines for evidence-based care to help drive improvements in treatment and prevention strategies.

The Office of Dentistry (OOD), which serves nearly 400,000 veterans across 207 dental clinics, focuses on developing national policy for VA dental care, new program development, and overseeing how care is being delivered. Dr. Ward emphasized that, until three years ago, dentistry in the VA was not on the Veteran Health Administration's radar because there were no oral health performance-based measures to serve as benchmark standards. Thus, dentistry remained a low priority in the budget. In the 1990's, VA medical care was transformed by the Electronic Medical Record (EMR) and measureable evidence based outcomes of care (of which there are now over 200 that are tested quarterly). As these changes revolutionized medical care in the VA, it was crucial for the Office of Dentistry to catch up and get noticed.

When Dr. Ward launched the agenda for quality improvement, he placed patient care as the central focus, and emphasized the importance of measuring patient outcomes that reflected the VA's specific population. The VA serves a unique, high-risk demographic who are eligible for care based on what is considered appropriate for them. VA patients primarily include older males with numerous systemic and chronic diseases, who have poly-pharmacy, and often have substance-abuse and/or mental health problems. Additionally, military conflicts of recent decades have brought a new crop of young male and female patients, also with a host of health concerns. By addressing patient outcomes in their research on quality, the OOD has been better informed on how to allocate resources and support clinicians in making more appropriate and cost-effective treatment decisions.

An Integrated Approach for Advancing Oral Health Quality

Starting on a "shoe-string" budget, the OOD began their oral health improvement initiative by organizing three national committees that collaborate to provide an integrated approach for all their efforts related to research, education, and quality care to improve the oral health of veterans. The groups include:

- Research - VA Dental Practice-Based Research Network (PBRN) – This group of affiliated VA dental practices conducts research and shares expertise about real-world clinical practice. Their goal is to examine clinical questions relevant to veteran oral health and provide data to the VA Quality Group to assist them in examining outcomes and developing clinical guidelines. The PBRN also shares findings with the VA Education Group so they can develop training and resources for the VA Dental Team.

"Can we as a profession prove that if you get good dental care, you're more likely to keep your teeth? Can we show that it can increase longevity or improve quality of life? It's amazing when we start looking at the evidence."

– Dr. Timothy Ward

- Education - VA OOD Education Group – This group takes the PBRN's evidence-based research and translates it for efficient use in clinical practice. In addition to a website of educational materials, the group produces monthly webinars that offer cost-effective ADA CERP accredited Continuing Education for the nationwide VA Dental Team. The webinars have been highly successful, attracting over 500 VA clinicians each month for topics such as use of fluorides in high risk patients; treating dental patients with post-traumatic stress disorder; and the dentists role in sleep apnea. Additionally, they provide quarterly webinars for the VA's nearly 150 dental service chiefs on management issues.

- Quality Care - VA OOD Quality Group – This group develops oral health quality monitors, studies outcomes, and publishes clinical guidelines and papers in an effort to shape clinical behavior to ensure appropriateness and proper scope of care. The group is directed by Dr. Judith Jones of Boston University (a former VA dental chief herself), and strives to be diagnostically driven, with an efficient coding system to track procedures and outcomes for creating reliable measures.

The close collaboration of these groups helps ensure efficient knowledge transfer. As an example, the PBRN will be examining outcomes of endodontic care, the results of which will be handed off to the Quality Group for development of clinical guidelines for care. Similarly, when the Quality Group developed measures for monitoring the use of fluoride treatments, they were shared with the Education Group, which created a clinical webinar on best practices for fluoride care.

Success Highlights of Quality Improvements

In the past three years, the OOD has accomplished a number of valuable improvements in VA dentistry and the oral health of veterans, including:

- Monitors for Evidence-based Care – The VA Oral Health Quality Group has developed monitors and evidence-based guidelines for three important clinical processes including fluoride use in high risk patients; comprehensive evaluations every two years; and dental treatment based on compelling medical need. The fluoride monitor targets patients who have had two or more restorations within a 12 month period and looks at whether or not they have received a fluoride treatment or prescription during that time. If this had occurred 60% of the time, dental practices are considered "good", if 75% of the time, they are considered "exceptional." After only one year, as awareness of this monitor grows, VA dental teams nationwide have been quick to get on board. Additionally, the monitor on compelling medical need has been valuable in serving veterans eligible for dental care due to a medical condition impacted by poor oral health. The monitor helps identify the access to dental care necessary to facilitate the needed medical care and helps promote better systemic health in those patients.

> *"Transparency and metrics — that's how you make change happen fast."*
>
> *– Dr. Timothy Ward*

- Homeless Dental Program – 25% of all homeless people are veterans. Since 1992, an agency within the VA that helps serve homeless veterans has conducted an annual survey asking the homeless about their top healthcare concerns. Consistently, the top 2 or 3 concerns have been oral health issues. As such, in 2006 the VA funded a multi-million dollar program to provide dental care for homeless veterans. Dental services, which are primarily contracted out through community health clinics and offer a limited scope of care, are designed to improve oral health to help the homeless get employed. To measure the effectiveness of the program, the VA Oral Health Quality Group has been studying outcomes. Initially, their data on patient visits and services rendered shows dramatic improvements in oral health for homeless patients. The group is now planning an outcomes study measuring the social impact of better oral health in homeless patients; for instance, examining whether they are experiencing improvements in their self worth and employment status.

- Electronic Waiting List – In response to complaints about the length of time patients had to wait to get into a VA clinic, in 2003, the VA implemented the Electronic Medical Waiting List to measure access to medical care. However, dental care was not included in this metric, and as a result, the OOD's budget kept diminishing. To make the case for dental care, in 2005, the OOD conducted a paper survey and found that 50,000 veterans were waiting over 30 days to access dental care. The VA responded quickly; within 18 months the OOD had $110 million in supplemental funds for dental care, and within a year they had an established Electronic Dental Waiting List. By early 2007 that electronic list was integrated into the official master waiting list, representing a major step forward in gaining recognition for the value of dental care. By December 2008, the dental care waiting list was down to less than 1,000 patients --which, as Dr. Ward noted, is also a measure of quality as it reflects their ability to get patients into treatment in a timely fashion.

> *"Our survey found that over 50,000 patients were waiting for dental care. I can't tell you how powerful it was to be able to take that data to decision makers and say, 'what happens if this gets out?' Money started pouring in to fix the problem."*
>
> *– Dr. Timothy Ward*

- Integration into the 50 "Performance Clinics" – The VA produces a performance report of 50 clinics in the VA hospital that tracks, among other things, the percentage of patients seen within 30 days. It is an "access indicator," and for a long time, dentistry was left out. Finally, in early 2009, dentistry was added to the group, an important step in gaining visibility for dental care.

- Dental Performance Scorecard – With the help of Dr. Terry O'Toole, Director of VA Oral Healthcare Analysis, the VA Oral Health Quality Group developed a simple, graphical tool for reporting performance data that dental chiefs and other hospital and regional administrators can use to track progress at their facility. The scorecard charts real-time data on key measures including: the percentage of medically compelling patients treated; comprehensive oral evaluation monitor for eligible veterans; the number of patients on the electronic waiting list over 30 days; and preventive fluoride use in high caries risk patients. This dental scorecard compares the facility's results with national and regional data.

- Frequency Screening Reports – Another innovation by Dr. O'Toole and the VA Quality Group was the development of reports that a dental chief can use to track the frequency of procedures in order to gauge the quality of providers and ensure that appropriate care is performed. Reports include frequency screenings for: exams by site; in-house and fee-basis procedures by patient; procedure-intensive patients by site; procedures prior to and after extraction; provisional crowns by site; and selected procedures by site. These reports are aimed to validate the VA dental coding process, and also to help management identify trends in treatment that may not always be appropriate and thus indicate a need for provider education or mentoring.

- Cranioplasty Outcomes – In collaboration with the Department of Defense, the OOD is measuring clinical outcomes for severely injured veterans who have had a cranial implant for trauma related injury. Having recently secured funding, approximately 230 cranioectomy patients have been identified and will be tracked, evaluating their progress and care, including monitoring sophisticated cognitive and physical issues.

The Big Picture on Improving Quality

In closing, Dr. Ward cited the vision of the Office of Dentistry, which emphasizes transparency, collaboration and accountability across the VA organization as a means toward achieving quality. They encourage a culture that could well be adopted by any dental practice in the nation, one in which "all dentists feel they play a role in expanding the knowledge base of oral health." Additionally, the OOD is striving to become the definitive source on the appropriate care for geriatric patients.

Dr. Ward also stressed the value of the Electronic Medical/Dental Record in advancing the effectiveness of dental care delivery. At the VA, EMRs have enabled integration of medical and dental data that gives clinicians a more comprehensive view of each patient's health concerns –a vital factor in ensuring that appropriate care is delivered. It also helps ensure that patient record-keeping is efficient and systematic, which is very useful for reliable data collection.

Nevertheless, most commercial Dental EMRs focus only on practitioner productivity and billing, which means there is considerable room for improvement in this technology. Dr. Ward strongly urged all dental professionals to get involved during these early stages of development to ensure that what providers really need –such as quality data for tracking performance and outcomes-- is built into these systems.

"We absolutely must have standardized benchmarks so we can all compare what we're doing. We have to be transparent and use the same metrics. Only then will we be able to move forward on really improving quality."

– Dr. Timothy Ward

In order to motivate substantial improvements in patient care, dental providers need to be able to track whether they are really doing the right thing for patients by measuring their care protocols against industry-accepted standards of quality. We need those standards. The key to really driving change in dental care quality is to work together as a profession to ensure that providers have a consistent and reliable way to objectively track the effectiveness and appropriateness of the care they give–and standardized benchmarks to recognize where and how to make improvements.

Calls to Action

Throughout the 2009 Institute for Oral Health Conference, participants had the opportunity to engage with the presenters to explore questions and ideas of interest. This collaborative discussion targeted some key takeaways and calls to action for all healthcare professionals to consider as we drive toward improving the quality of patient care.

Sell people on the value proposition to encourage lifestyle behavior changes

As keynote speaker, Dr. Richard Carmona, emphasized, it is far more effective to encourage people to change gradually, to give up a little at a time, than to expect they will stop "cold turkey." It is important to remember that for many people, lifestyle changes may require a real paradigm shift --in how they see themselves, and what they value in terms of quality of life. For example, a person may really enjoy smoking, even though they know it is unhealthy. But they might be persuaded to quit if the alternative has a compelling value proposition – and here is where money talks. Providers should consider promoting cost savings as part of educating patients.

For example, if a person quits smoking, they have a better chance of staying well throughout the year, which means they spend less money on over-the-counter drugs and doctor visits. Furthermore, their oral health will improve as well, which means they spend less on cavities and costly treatments for periodontal disease or oral cancer.

"It's really about everything in moderation, not deprivation."

–Dr. Richard Carmona

On a much larger corporate or governmental scale, Dr. Carmona stressed that behavioral changes can be encouraged through effective partnering to gain buy-in from leaders, and strategic plans that can be deployed incrementally over time. As an example, he cited that, as Surgeon General, he met with the corporate heads of McDonald's® to explore ways to make their food healthier, including advising that portion-size was contributing to obesity. As a result, the fast food giant eventually made changes, such as removing their offerings to "super size" meals, and replacing the fatty meat contents of "Kid's Happy Meals" with chicken, yogurt, and fruit. And customers are buying it, which means they are adapting to the healthier products and even grow to demand more of them, evidenced by seeing more and more fast food venues offering salads and fruit juices.

Motivate provider behavior changes by introducing benchmarks in stages

In his presentation, Dr. Robert Compton noted that in developing Delta Dental's Prevention Reports for providers, focus group feedback indicated they should remove the comparative benchmarks because providers found them threatening. However, those who recognize the value of benchmark data questioned this issue. In response, Dr. Compton acknowledged that, unfortunately, "organized dentistry" is still very concerned about having their performance measured. To effectively counter those concerns, we need to remember that behavioral change often requires a gradual approach.

Dr. Compton cited a recent study that recommended a strategy for organizations wishing to promote benchmark data and clinical guidelines. Rather than immediately publishing online a lot of data about provider performance across the state, it is best to do so in stages.

"We face a huge barrier to implementing quality benchmarks if providers are uncomfortable being compared to anyone else."

– Conference Participant

- Stage 1 - First introduce the data privately to providers, so they can assess how they are doing. This approach affords them the opportunity to respond and provide proof for any corrections (because admittedly, claims data is imperfect).
- Stage 2 - From there, the next stage is to show the providers how they perform, along with a one-number benchmark for similar dentists in their community.
- Stage 3 - After that, the next level includes a full comparison of how each provider performed, compared to many other named providers in their community –so everyone knows how everyone else is doing.
- Stage 4 – Finally, the data can be published online for public access.

Using a phased approach can help circumvent some inevitable pushback by allowing providers to first respond and understand how they are being measured, get used to the idea, and then, hopefully, focus on actively improving their quality of care.

Make it personal – bring empathy into patient-centered care

Dr. Leitch recounted a story about his own experience with hospital staff and procedures when his grandmother had a stroke and broke her hip. It made him look at the healthcare system through an outsider's eyes. While the staff was reliable and friendly, he recognized an undercurrent of desensitization that commonly gets communicated directly and indirectly to patients and family. While caregivers may need to cocoon themselves from emoting over every patient, there are definitely areas where we can improve the quality of care on very basic levels to enhance the patient experience on a personal level.

A simple start would be to develop communications written with a more empathetic tone, so patients and visitors feel welcomed and supported. Another step would be to introduce more flexibility around meals and other common routines to help ease the discomfort and disorientation patients are already feeling.

Toward this end, Dr. Leitch raised a call to action to the conference audience, asking them to take a specific, personal step toward learning more about patient-centered care:

> *"We dehumanize patients and caregivers in hospitals all the time. We put people in gowns with their bums sticking out the back, we make them eat when we decide they should eat and what they should eat, and we tell visitors when to come and when not to come. We completely dehumanize healthcare because it's easier that way, it helps us not to care."*
>
> *– Dr. Jason Leitch*

> "*I would like you to speak to somebody in your family or a close friend who has had serious healthcare. Buy them lunch or have them over for dinner, but really take time to talk with them about their care –not about the disease. For example, if they've had cancer and they're 'fixed', don't talk about the chemo -- talk about travel, talk about infection, talk about what it felt like to have kids when they had cancer, talk about what it felt like to not be able to do their work, or to have a spouse who had to travel 100 mile round trips for the oncology visits. You will learn more about your healthcare system in that single hour than you will in coming to a conference.*"

Start the discussion for quality and change

While this conference spotlighted individuals who have been striking out on their own to innovate quality improvements, in order to achieve more substantial change it must be systemic. Now is the time for everyone in healthcare –especially oral health professionals– to become part of that change.

Perhaps the biggest challenge facing dentistry today is one of exclusion, being separated from mainstream healthcare –in structure, plan policies, treatment strategies, and in the public's eyes. We need to change that. In order to gain equal status as a vital part of overall healthcare and be recognized as such in healthcare reform, we need to start actively driving improvements in those areas and collect the data to prove our case.

As a profession, if each of us steps up to be a part of that change, together we can make a significant difference. We can change the future of dentistry through reliable evidence and consistent guidelines that help us deliver the best care for every patient, every time –and in so doing, we can prove the value of dental care and the important role it plays in systemic health.

"The sense of urgency for change is greater than ever before, and we need to take advantage of it. At the Institute for Oral Health, our goal is to give you information that will help you place your stake in the ground –whether at the practice level, with a health plan, or any other arena of care – we encourage you to start the discussion."

– Dr. Ron Inge
Executive Director, IOH

Join the Conversation!

IOH encourages everyone to get involved and share their insights and feedback about important oral health topics and healthcare reform:

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