



INSTITUTE FOR  
*Oral Health*  
IOHWA.ORG

2011

focus group whitepaper

# Oral Health and Prevention

## Rebranding the Profession



2011 group #2

March 10 & 11, 2011  
San Diego, CA

**:: excerpt ::**

**David Wong, DMD, DMSc**

# Introduction

*“A common misperception among community health workers [and the public] is that childhood caries is not a problem. They often say, ‘We have a community dental clinic; if we have an emergency, we send kids to you and you see them the same day. As long as we get kids to the services they need, that solves the problem, right?’ They don’t understand how important it is to prevent the problem in the first place.”*

*--Dr. Courtney Chinn*

In looking at where disease prevention is in the overall oral health picture, in 2011 the Institute for Oral Health (IOH) is exploring how to “rebrand” the dental profession. During the 1960’s and 70’s, dental care was largely focused on prevention through fluoride use, and has “ridden that wave” for a number of decades. Yet we have come a long way since then, with new dental research and progressive solutions underway across the country that are having a significant impact on dental disease prevention. This year, the IOH is spotlighting some of the best of these efforts and how the dental profession can incorporate new approaches to prevention into everyday dental practice as we look toward the future.

To support our 2011 theme **“Oral Health and Prevention: Rebranding the Profession,”** in March, the IOH hosted the second of two focus groups with expert panel discussions about solutions at the forefront of innovation in health care, aimed to advance how we think about and address dental disease prevention. In follow-up, the IOH will feature special guest speakers to share key findings with a larger audience of critical stakeholders through our annual national conference, to be held October 27-28, 2011 in Chicago, Illinois.

Hosted in San Diego, California on March 10-11, 2011, this focus group was led by IOH Executive Director, Dr. Ron Inge, and featured leading authorities in dentistry and dental research, community oral health programs, and the American Dental Association to discuss innovative approaches to disease prevention to improve oral health for high-risk, underserved populations. The group shared insights on the following key topics:

- **Advancing saliva diagnostics for caries risk assessment** – Increasingly, dental research is pointing to saliva diagnostics as a quick, easy, and accurate method for identifying the oral bacteria that causes caries. While currently results can be used to identify problems and guide treatment decisions, the challenge remains to build scientific evidence on the predictive value of saliva in determining caries risk.
- **Promoting early preventive visits to improve outcomes and costs** – When children receive their first preventive dental services by age one, studies show that the cost of dental care in subsequent years is reduced 50% or more compared with children who have no preventive visits until age three or older. Additionally, preventive care and oral health counseling at an early age helps reduce the number of procedures required and increases continued usage of dental services to prevent early childhood caries.
- **Reducing childhood caries risk by engaging families in behavioral changes** – To improve oral health in low-income, minority children, it is important to recognize the many factors beyond economics –such as societal, social, community, and cultural—that influence how a family attends to health issues. We need to provide supportive, engaging ways to counsel parents about oral health and healthy behaviors that help prevent tooth decay in their children.

- **Increasing prevention awareness through the ADA** – As the nation’s foremost advocate for oral health, the ADA works diligently in the arena of disease prevention such as establishing policies, programs, and public awareness campaigns to advance caries risk assessment and preventive dental care. The ADA also promotes clinical recommendations for evidence-based dentistry, and provides leadership for progressive collaboration across stakeholders for high-risk populations.

---

## Join us for the 2011 Institute for Oral Health Conference

In follow-up to this year’s focus groups, Institute for Oral Health is providing whitepapers and promoting relevant news and research through our website, quarterly newsletters, Facebook, and participation at health conferences around the nation. Culminating this year’s theme is our **5th annual national IOH conference on October 27-28, 2011 in Chicago, Illinois** at the Sofitel Hotel. Learn more and register early for discount rates ~ please visit: [IOHWA.ORG](http://IOHWA.ORG).

## 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.

## learn more

Web: [IOHWA.ORG](http://IOHWA.ORG) ~ Register Online for the 2011 IOH Conference



Become a Fan on Facebook

## David Wong, DMD, DMSc

Associate Dean of Research, Fillex & Mildred Yip Endowed Professor of Oral Biology, Oral Biology & Medicine, and Director of Dental Research Institute at UCLA School of Dentistry

---

# Saliva: The New Diagnostic Frontier

For the March 2011 Institute for Oral Health focus group, Dr. David Wong brought additional perspectives on the potential of saliva diagnostics as an oral disease prevention tool. He discussed emerging technologies that could enable effective point-of-care diagnostics, and how these diagnostics might translate into improving health outcomes and advancing prevention in oral and systemic diseases. Dr. Wong noted that a current goal set by National Institute of Health is that “by 2013, to determine the efficacy of using salivary diagnostics to monitor health and diagnose at least one systemic disease,” which as a national mandate is a reflection of the growing importance of this technology.

## The Role of Salivary Diagnostics in Disease Detection

While research and technologies are advancing for salivary diagnostics, Dr. Wong focused his discussion not on the tools themselves but on how well they are meeting real-time clinical needs in terms of risk assessment and predictive value for disease prevention and early intervention. He highlighted some key examples of how salivary diagnostics could change the face of disease detection:

■ **Oral cancer** – Our nation has 34,000 new cases annually, with a five-year survival rate of less than 50%, a statistic that has not changed in 30 years. A primary problem has been the lack of early screening technologies. The emerging salivary diagnostic tools enable researchers to identify oral cancer biomarkers in saliva, and prioritize their impact on survival rates. Dr. Wong’s UCLA Lab has achieved notable results which help to strengthen the credibility of saliva as a determining factor influencing oral and systemic health.

---

*“In many cases, had Stage 4 oral cancer been detected at Stage 1, it would immediately confer on the patient a 60% increase in survival in five years, immense improvement in quality of life, and a significant reduction in health care costs.”*

*– Dr. David Wong*

---

■ **Pancreatic cancer** – The National Cancer Institute estimates 30,000 new cases each year and 30,000 deaths per year from pancreatic cancer. Since the 1950’s, the five-year survival rate has remained severely low at about 5%. More than any other cancer, for this disease we are seeing “a soaring need” for advancements in early detection.

A 2010 study by Dr. Wong and his colleagues demonstrated the “predictive power of salivary mRNA biomarkers” for use in detecting pancreatic cancer. In testing with animal models, researchers discovered that when an animal developed a cancerous tumor, there were “robust biomarker changes” in their saliva.

---

*Dr. Wong’s UCLA Lab hosts the Salivaomics Knowledge Base, a user-friendly web-based database of salivary diagnostic research and downloadable data.  
Visit: [www.skb.ucla.edu](http://www.skb.ucla.edu)*

---

To advance these diagnostics for practical clinical use, Dr. Wong and his associates have developed an innovative chair-side or point-of-care technology prototype that is an “electrochemical sensor for multiplex biomarkers detection.” The device, currently six months away from being manufacturable, delivers in 10 minutes an algorithm for salivary biomarker disease detection.

## Engaging Dentists in Medical Disease Detection

Although we often hear about lack of access to dental care and large populations with poor oral health, statistically 72% of Americans see a dentist regularly, while only 43% visit physicians regularly. As such, dentists have a unique opportunity to play a bigger role in the detection of systemic diseases, and salivary diagnostics may be an important part of that.

A 2010 Journal of the American Dental Association (JADA) article noted that nearly 88% of dentists surveyed cited they were willing to collect oral fluids for salivary diagnostics in an effort to help in the detection of diseases such as diabetes and cardiovascular disorders. Looking forward, Dr. Wong recommends that dentists expand their operating “portfolio” beyond their own clinical practice and continuing education to include an investment in procedures such as saliva collection. In this way dentists can help contribute to early detection of serious medical conditions and promote more positive, cost-effective health outcomes. This effort is just one step forward toward integrating dentistry and medicine, and may evolve toward providing medical reimbursements to dental providers.

## The Roadmap of Salivary Diagnostics

Dr. Wong’s work centers on building a pathway from research to actual changes in clinical practice and reimbursement models. The “roadmap” includes the following sequence:

1. Research funded in an academic setting by organizations such as the National Institute of Health (NIH), National Institute of Dental & Craniofacial Research (NIDCR), National Cancer Institute (NCI), and others.
2. Validation of salivary biomarker research and development of point-of-care solutions, using “the most rigorous criteria possible.”
3. Corporate partnerships to help bring salivary diagnostic technology to the forefront.
4. FDA regulatory evaluation to confirm the credibility of the technology and help it progress beyond the academic community.
5. Support for reimbursement essential to drive adoption across the dental and medical profession.

To highlight the importance of salivary diagnostics, in 2009 President Obama introduced his “Innovation Strategy” for bolstering the economy and job force. This major national initiative includes a renewed commitment to advancing science and technology to improve health outcomes –including “early detection of dozens of diseases from a saliva sample.” With this high profile goal, salivary diagnostics may play a prominent role in early detection and disease prevention in the years ahead.



Dr. Ron Inge, IOH Executive Director

2011

join us

Register Today - Earlybird  
Discount Until July 1!

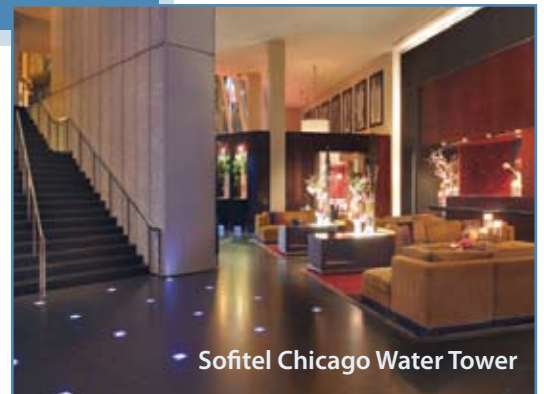
(9) CE CREDITS Available



INSTITUTE FOR ORAL HEALTH ~ 2011 CONFERENCE

# Oral Health and Prevention

OCT 27 & 28, 2011 ~ Chicago, IL



Sofitel Chicago Water Tower

get the latest

Web: [IOHWA.ORG](http://IOHWA.ORG)



Become a Fan on Facebook