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2011

whitepaper

2011 conference

Prevention
Rebranding the Profession

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:: whitepaper excerpt ::

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"Building a future based on prevention would give us the win-win situation we are all looking for. It would decrease costs and increase quality of care. I believe that's the only hope we have of moving forward."

--Dr. John Luther

As caries rates reach epidemic proportions in children across America, and millions of people have unmet dental needs, the dental profession faces a greater challenge than ever before. To improve oral health nationwide, the goals are changing from finding better ways to manage disease to imperatives of preventing disease. Toward that end, the Institute for Oral Health (IOH) dedicated 2011 to the theme of prevention, exploring evidence-based best practices and innovative models of care that are advancing disease prevention and early intervention.

In October 2011, the IOH hosted our fifth national conference in Chicago, Illinois on "**Prevention: Rebranding the Profession**." The event spotlighted impressive steps forward in risk assessment, reducing early childhood caries, integration with primary care, new dental roles and effective collaborations to advance prevention, as well as guiding principles for longevity from the world's healthiest cultures. The conference welcomed guest speakers from across dentistry, medicine, dental benefits, health policy, and the American Dental Association (ADA).

Key prevention strategies discussed at the conference included:

- Risk assessment and early disease detection – Many experts agree that prevention in oral health needs to include a framework centered on caries risk assessment. One progressive approach is an assessment form that reduces the dental office burden by engaging patients to self-assess, and providing choices for treatment strategies that best fit patient needs and willingness to adopt healthier behaviors. Additionally, innovations in salivary diagnostics may soon make it possible for dental teams to conduct quick, scientifically accurate chairside tests to detect the presence of an array of diseases within minutes.
- Preventive dental visits by age one – Studies confirm that children who receive their first preventive dental services by age one have lower incidence of caries over time and require fewer hospital visits for restorative care. As a result, these early visits dramatically reduce the cost of care. Reaching parents early also helps them understand oral health milestones and increases continued usage of dental services to prevent early childhood caries.
- Socially-relevant behavior modification – An innovative model has been introduced that provides an interactive, visually appealing mobile application that community health workers can use to engage parents in childhood caries risk assessment and oral health education. Using simple, culturally relevant language and nutrition references, the system helps guide low-income, low-literacy minority families toward adopting healthier behaviors that help reduce and prevent caries.
- New dental roles to increase access to preventive services – New training programs are underway that establish a new dental team member, the Dental Therapist. Skilled in basic dental services, oral health counseling, and practice management, the Dental Therapist helps increase practice capacity for basic oral exams, risk assessments, and preventive

services, and works closely with families to help them understand ways to maintain good oral health and reduce tooth decay. Another program underway is the ADA-sponsored training for Community Dental Health Coordinators (CDHCs). Supporting the low-income communities in which they live, CDHCs serve as a trusted resource to provide culturally-sensitive oral health education, coordinate access to dental care, and perform basic dental services and risk assessments for families in public health settings.

- Engaging primary care providers in oral health – As family physicians and pediatricians have more frequent access to young children, these primary care providers are increasingly taking advantage of oral health training programs to help reduce early childhood caries. Providing basic oral screenings, fluoride varnish, and oral health education, they help families understand the connections between oral health and overall health, and the importance of starting dental prevention early to reduce caries risk over time.

Stay up to date on 2012 Institute for Oral Health events

Our 2012 theme is "The Evolution of Oral Health Care Delivery." Throughout the year, the Institute for Oral Health will host focus groups with industry experts, participate in national oral health events, and convene our **6th annual national conference on October 4 & 5, 2012 in Boston, Massachusetts**. Keep up with the latest news and findings through our website (IOHWA.ORG), whitepapers, quarterly newsletter, and Facebook fan page. Additionally, check out the latest advances in oral health care on our site's special section "Innovation Central."

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.

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Web: **IOHWA.ORG**

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MySmileBuddy: Bio-Behavioral Disease Management for Young Minority Children

In today's dental profession, we often think about patients in terms of improving access, treatment, and benefits; however, we rarely focus on the real patient experience. Many generations of dentists were not trained to communicate with patients on a personal level, yet developing a deeper engagement is vital in helping to educate patients and families on oral health, and encourage them to adopt healthier behaviors that include regular dental visits. This year's Institute for Oral Health annual conference highlighted a new generation of dentist: Dr. Courtney Chinn from Columbia University's College of Dental Medicine, who has helped developed an innovative approach for engaging parents and children to teach them about the importance of oral health and prevention.

Dr. Chinn provided an overview of his team's interactive mobile computer application called *MySmileBuddy*, a family-friendly application that can be used by health care workers and non-dental counselors in community settings to educate parents and perform risk assessments for early childhood caries.

Preventing Childhood Caries: How do we change family behaviors?

Currently, our nation faces a growing epidemic of early childhood caries (ECC), with studies estimating that 44 percent of four year olds and 34 percent of three year olds have caries. Even with surgical repair, recurrence of new cavities within two years is 40-60 percent. (Dr. Chinn posited that if we were cardiac surgeons, we would never accept this failure rate; why do we accept it in dentistry?) Numerous programs are emerging to increase access to care and deliver preventive services, yet to fully address the problem, we need to take a further step back and consider the family dynamics where poor oral health habits develop in the first place.

In his focus on the social sciences aspect of dentistry, Dr. Chinn emphasized that the challenge is to bridge the gap between health education and health behavior change. To make the point, he offered a simple scenario that may be common to pediatric dentists: He sees a high-risk child, recommends they use prescription fluoride, and the parents promise to use it. Yet when he sees that child again, he discovers more cavities and can see the fluoride has not been used. Why?

> *"As dentists, we know ECC is an infectious, diet-dependent disease and predictive of life long caries risk. But how do we communicate that to our patients and affect real change? It's easier to slap in the filling, even though we know that doesn't stop the disease process."*
> *–Dr. Courtney Chinn*

To truly prevent ECC, we need to bridge that gap between what we recommend to patients and what they actually do. Dr. Chinn and his team (led by Dr. Burton Edelstein, founder of the Children's Dental Health Project) answered that call with an approach that personalizes the education, helping families understand oral health in terms of how they live their daily life. By exploring their nutritional habits and social context, we can more effectively motivate healthy behaviors that families can easily adopt to help prevent lifelong caries risk.

Understanding factors that influence behavioral change

Because the project was geared specifically to help low-income, minority children, an important first step was to understand the overall social context of these families. To influence behavioral changes that could reduce ECC, the approach to oral health education would need to address many social factors beyond economics such as:

- Society – Race, inequities between economic groups, and access to dental care resources.
- Community – Quality and safety of the family's home, schools, and social environment; community oral health resources.
- Family – Family culture, economic status, education level of the parents, and parents' own health status and health behaviors.
- Children – Physical, genetic, and demographic attributes, health behaviors and development, use of dental care and access to dental insurance.

Who should deliver this message?

In bringing forth this solution, another key consideration was: who is best to deliver this message? While dentists have the specialized knowledge, they are typically procedure-focused and have no way to bill for extra time spent counseling a parent. Hence, their frame of reference and financial motivation might make them less effective in the social dynamics necessary for the new approach. The team then considered community health workers, and found that concerns about their lack of dental knowledge were outweighed by the valuable "insider" knowledge these caregivers possess. Often they have established trust with families in their community and have access to them outside a dental office. Community health workers also typically have a strong understanding of cultural contexts that could help ensure their communications are appropriate and well-received.

What role can technology play and what would it look like?

Moving forward with the idea of enlisting community health workers to engage families, the team focused on what ECC management might look like when delivered by a non-dentist in a community setting. They recognized that technology could play an important role on three fronts: it could help ensure oral health messaging is delivered accurately and consistently; provide a model in which to record patient and family assessment data; and offer a compelling, interactive, and highly visual educational experience.

Supported by a grant from the National Center on Minority Health and Health Disparities, to design the application the team formed a trans-disciplinary taskforce that included dentists, pediatricians, nutritionists, public health workers and social workers, and experts in educational technology. The group's primary objectives were to:

- Develop an electronic, interactive tool for ECC risk assessment and oral health education that is easy to understand and portable for use in home and community settings.

- Train community health workers to use this tool to help low-income, minority, low-literacy parents understand ECC risks and set healthy goals for preventing caries.

MySmileBuddy

The end result is *MySmileBuddy*, a highly visual Apple® iPad® application backed by a robust database. The interface design factored in feedback from focus groups with Head Start parents and staff to identify words and imagery that would resonate best with them, even considering foods that would be culturally relevant to their communities. The group also interviewed local dental safety net providers to understand variables such as the types of fluorides they can access. With this level of detail, they could tailor the application to ensure relevancy for each community.

Assessing *MySmileBuddy*: How well is it doing?

With pilot programs launched in early 2011, the development team has been evaluating how well *MySmileBuddy* is meeting key objectives. To determine if it is a viable risk assessment tool, they have been tracking clinical findings, and will compare them with paper risk assessments conducted at the Columbia University Pediatric Dental Clinic. To assess the value and helpfulness of *MySmileBuddy* as an educational tool, the group has interviewed community health workers and families, and so far the feedback has been very positive.

Lessons Learned

To continue to refine *My Smile Buddy* and better understand their audience, Dr. Chinn's team has looked closely at lessons learned through feedback from all the stakeholders:

- Parents – Their insights have revealed a great deal about the social context in which families view their health care. One interesting finding was that minority parents often expressed they are "culture-bound to express deference to health professionals." Unfortunately, as Dr Chinn put it, they are essentially saying, "Even if I don't agree with your recommendation, I'm going to agree with your recommendation, but once I leave your office..." Additionally, parents admitted they were less comfortable with a dentist, and that although they had heard oral health messages before, they "believed it more" coming from a trusted community health worker who understands their culture.

- Community health workers – Community health workers made a surprising claim that oral health was not a problem in their community because they were able to send kids to a dental clinic. They felt they had solved the issue and were instead focused on pressing concerns about jobs, housing, and food. However, as community health workers recognized their responsibility in connecting families to dental care, this provided the opening to engage them in educating parents and motivating behavior changes to help reduce childhood caries. While they wanted to avoid assuming a role as a dental care worker (e.g., doing oral exams), they expressed great enthusiasm for *MySmileBuddy* as an educational tool, and were eager to help encourage families toward healthier behaviors.

After many months of development and community engagement, *MySmileBuddy* is moving forward with a working prototype, which thus far has been validated with enthusiastic response by a small group of community health workers. As we look at the future of dentistry in terms of improving oral health and overall health, innovative approaches to prevention and health literacy —like *MySmileBuddy*— will be an essential part of the picture.