



INSTITUTE FOR  
*Oral Health*  
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2011

focus group whitepaper

# Oral Health and Prevention

## Rebranding the Profession



2011 group #2

March 10 & 11, 2011  
San Diego, CA

**:: excerpt ::**

**Courtney Chinn, DDS, MPH**

# 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 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.

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## 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



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## **mySmileBuddy: Bio-Behavioral Disease Management for Young Minority Children**

With the urgent national concern of early childhood caries, approaches to prevention and early intervention need to cover many angles in the patient experience. In the March 2011 Institute for Oral Health focus group, Dr. Courtney Chinn introduced *mySmileBuddy*, an oral health education and risk assessment program, which teaches parents about health factors influencing tooth decay and guides them toward adopting healthy behavior changes for their child.

### **The Growing Epidemic of Early Childhood Caries (ECC)**

The prominence of ECC as a rapidly growing chronic disease in children under age six necessitates changes in our current models for treatment and disease management. To effectively manage this “*aggressive, infectious, diet-dependent disease*,” we need to explore ways to motivate healthier behaviors in families to help prevent lifelong caries risk.

As the incidence and severity of caries increases in children, the costs to a family mount up. Beyond expensive restorative care and medications, there are increased costs for missed days from work, child care, travel to appointments, as well as the added stress of children suffering from eating, sleeping, and learning disorders related to tooth pain. Current studies estimate that 44% of four year olds and 34 percent of three year olds have caries –and even with surgical repair, recurrence of new cavities within two years is 40-60%. These results tell us that fluoride treatments and merely advising children to brush more will never be enough to stem the rising tide of caries.

To motivate behavioral changes, healthcare professionals need to engage families to provide personalized counseling tailored to their child’s risk level, and help families create an action plan for change to improve their child’s health outcome and reduce the many costs of caries.

### **Understanding Factors that Influence Behavioral Change**

In working to drive behavioral changes to improve oral health, it is important to consider the many social factors beyond mere economics that influence family dynamics. As Dr. Chinn noted, “*a tooth fits inside the mouth, which is inside a child. But it doesn’t stop there. The child is within a family, and that family is part of society, so we need to consider a larger context.*” Determinants that may affect how families attend to a child’s health issues span many levels, such as:

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

While dentists fit in most directly at the child level, providers have a better chance of influencing oral health behavior changes if they understand the myriad of factors that may need to be considered, and customize their approach for each family's needs.

## Developing a Platform to Drive Behavioral Change

The initiative known as “Bio-Behavioral Disease Management of Young Children,” was developed as an early childhood caries (ECC) management project spearheaded by Dr. Burton Edelstein, founder and chair of the Children’s Dental Health Project. In establishing a platform to engage families with personalized counseling about reducing caries risk, the group determined that the most effective approach should include perspectives from various disciplines across the community including dentistry, public health, nutrition, social work, and education technology.

### Key goals

Supported by a grant from the National Center on Minority Health and Health Disparities, the Dr. Edelstein’s group defined two key objectives:

- Develop, pilot test, and refine an electronic interactive, ECC risk assessment tool; and
- Train community health workers to use this tool to help low-income, minority, low-literacy parents understand ECC risks and how to prevent caries.

### Benefits of Partnering with Community Health Workers

The target audience for this initiative –low-income, minority families– often have limited access to dental care and little understanding about the importance of maintaining good oral health in young children. Community Health Workers have a greater opportunity to reach parents outside of a dental office, and are trained to communicate medical and dental advice as simple, easy to understand concepts to help promote behavioral changes. These providers seemed an obvious fit for the program –yet they brought even more benefit to the table. Community Health Workers proved valuable in educating the program planners, bringing an outsider’s perspective on how both health workers and low-income families often view dental care. For example, common perceptions include:

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*“A common misperception among health workers: ECC is not a problem. 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 we get kids to the services they need, that solves the problem, right?”*  
.....

– Dr. Courtney Chinn

- Many dentists are not “child-friendly,” unwilling to treat children either due to inadequate coverage or limitations of their practice.
- Dentists only treat the problem and prescribe medications; they do not educate families on how to prevent dental problems.
- Families are concerned about the “stigma” associated with a dental visit, concerned they will be judged poorly if their child is in pain and ill health.

Community partners admitted they were unaware of the prevalence and severity of the early childhood caries problem, and noted that parents never asked for help with dental issues. As such, this new program played an important role in educating health workers, and sparked their enthusiasm to promote preventive care to improve childrens’ oral health.

## Community Requirements for the ECC Risk Assessment Tool

To help ensure the ECC risk assessment tool –known as *mySmileBuddy*-- would be both highly effective and user-friendly, community health workers provided input on basic requirements to drive adoption. Most importantly, given the common misperceptions about the severity of the problem, they insisted the tool needed to provide education about early childhood caries along with steps to prevent it. Additionally, to appeal to the target audience, they recommended the tool be bi-lingual and low-literacy, and visually compelling and entertaining enough to avoid appearing like a complex questionnaire. To help motivate behavioral changes in families, the development team also conducted focus groups with parents to identify words and imagery that would resonate best with them.

## Disease Intervention Model for *mySmileBuddy*

Factoring in feedback from health workers and parents, the *mySmileBuddy* tool is being developed in English and Spanish and includes videos and other multimedia to provide a compelling learning tool for parents. On the technical side, *mySmileBuddy* is designed to support a model for risk assessment and disease intervention using the following cycle:

1. **Risk data entry** – Information about children is entered into the tool by the parent and community health worker.
2. **ECC risk assessment** – Based on risk data, the system generates an ECC risk assessment.
3. **Ideal intervention** - System provides a recommended care plan.
4. **Family capacity assessment** - Community health worker counsels the parent to determine their ability to manage the recommended care plan.
5. **Modified intervention** - Community health worker helps adjust the care plan as needed.
6. **Adherence** - Community health worker continues to engage the family to monitor how well they are adhering to the care plan and guide them toward using the ideal care plan.

*mySmileBuddy* has been designed as an internet-based application backed by a robust database, that provides parents and community health workers anytime, anywhere access to the tool, with simple yet engaging presentations for answering risk assessment questions and learning about oral health issues. The program asks questions that help identify nutritional and lifestyle habits that influence oral health, such as what type of water their children drink (tap vs. bottled) and what types of foods and eating habits the children have.

## The Road Ahead for *mySmileBuddy*

As of March 2011, the group has developed a working prototype and is refining the risk assessment algorithm to increase effectiveness and speed up data delivery. As they work to optimize *mySmileBuddy*, they are addressing unique challenges such as trying to integrate valid data collection while simultaneously educating parents, and merging disease risk and family assessment into a single tool.

Initially, *mySmileBuddy* will help facilitate dental screenings at local Head Start and pediatric dental clinics, where community health workers can help parents get started with the risk assessment tool. In follow-up, the development team will conduct feasibility studies, interviewing families and community partners to determine the impact the tool is having and any issues to help improve its effectiveness and ease of use.

2011

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Dr. Ron Inge, IOH Executive Director

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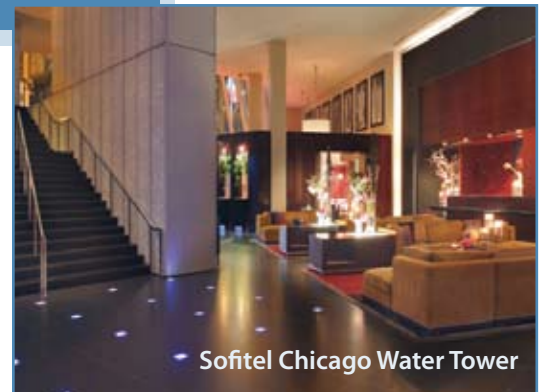
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