Healthy Futures

Engaging the Oral Health Community in Childhood Obesity Prevention National Conference—Executive Summary

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Introduction

Childhood obesity is a major public health problem in the United States and globally. Obesity is associated with and represents risk factors for a number of chronic diseases across the life span. The causes of childhood obesity are multifactorial and include genetic, environmental, lifestyle, and nutritional variables. Between the 1970s and 2012, the prevalence of obesity rose from 5 percent to 8.4 percent in children ages 2 to 5 and from 6.5 percent to 17.7 percent in children ages 6 to 11 in the United States. Childhood obesity has both immediate and long-term effects on health and well-being. The increasing number of children who are obese has led federal policymakers to rank childhood obesity as a critical health threat. Children who are obese are likely to be obese as adults and therefore, compared with children who are not obese, are at higher risk for adult health problems such as heart disease, type 2 diabetes, stroke, several types of cancer, and osteoarthritis.

An association between childhood obesity and dental caries, the most prevalent disease of childhood, has been suggested by several studies. Dental caries is also caused by a combination of factors, including cariogenic diet (especially sugar consumption), inadequate fluoride exposure, a susceptible host, and the presence of caries-causing bacteria in the oral cavity, which interact with a variety of social, cultural, and behavioral factors. Twenty-three percent of children ages 2 to 5 in the United States have experienced dental caries.

One explanation for the association between childhood obesity and dental caries is based on the rationale that frequent consumption of sugar-sweetened beverages (SSBs) and foods are common risk factors. Many foods and beverages that children consume have substantial amounts of sugar, and even a single serving can exceed the daily sugar consumption recommendation for children. In light of this, the association reported between body mass index, a weight-to-height ratio, and dental caries risk in children points to the value of using interdisciplinary approaches in health promotion and disease prevention to address the common risk factors. Multiple approaches are necessary to meet the challenge of childhood obesity, and health professionals of all types have roles to play.
Robert Wood Johnson Foundation Efforts

For more than a decade, the Robert Wood Johnson Foundation (RWJF) has worked to advance public policy and industry practices and improve community environments to ensure that all children have healthy weights, which contributes to a better quality of life. The efforts of RWJF have resulted in several notable developments, including the replacement of sugar-sweetened foods and beverages with healthier options in school cafeterias and vending machines. RWJF has also advocated for requiring food and beverage companies to clearly indicate the amount of added sugars on the labels of packaged items.

Conference Overview

Another manifestation of RWJF’s efforts to promote healthy weight in children was its support of the Healthy Futures: Engaging the Oral Health Community in Childhood Obesity Prevention National Conference, held on November 3–4, 2016, at Georgetown University in Washington, DC. The conference aligned with two RWJF goals: (1) to eliminate young children’s consumption of SSBs and (2) to ensure that children enter kindergarten at a healthy weight.

The 2-day conference was coordinated by five national organizations: the National Maternal and Child Oral Health Resource Center, the American Academy of Pediatric Dentistry (AAPD), the American Dental Association, the American Dental Hygienists’ Association (ADHA), and the Santa Fe Group. In addition, conference planning benefitted from valuable assistance from the project’s multidisciplinary advisory committee, which consisted of representatives from 19 federal agencies and national organizations.

The aim of the conference was to increase awareness of evidence-based recommendations; identify strategies; and promote
collaboration efforts that oral health professionals, oral-health-related organizations, and others can employ to prevent obesity in children under age 12. The conference addressed the following goals:

- Increase understanding of the science focusing on oral health and childhood obesity.
- Increase understanding of strategies that oral health professionals and organizations can use to prevent childhood obesity.
- Increase understanding of how the oral health community can work with other health professionals and organizations to prevent childhood obesity.
- Provide opportunities for networking and developing relationships to identify strategies to prevent childhood obesity.

About 125 individuals attended the conference, which encompassed a broad spectrum of health professionals (dentistry, medicine, nursing, nutrition), representatives from oral-health-related and other organizations, and experts in childhood obesity and oral conditions.

Before the conference, a series of background papers was commissioned; these papers included systematic or scoping reviews of the scientific literature designed to examine (1) the state of the science related to preventing childhood obesity, (2) the state of the science related to reducing children’s consumption of SSBs or in some cases sugar-containing beverages (SCBs), and (3) strategies that could be employed by oral health professionals and organizations and others to prevent childhood obesity. In addition, national surveys were conducted by AAPD and ADHA to obtain information about pediatric dentists’ and dental hygienists’ knowledge, skills, and attitudes related to childhood obesity. Additionally, the surveys explored oral health professionals’ interest in and likelihood of adopting clinical practices to identify children who are at risk for obesity or who are obese, inform parents about risk, and provide referrals for these children to obtain additional care.
Conference Agenda and Key Findings

The conference began with a keynote presentation by Margo G. Wootan, who spoke on the topic of building bridges to create action to promote oral health and prevent childhood obesity. Her presentation was followed by three panel presentations, each with three to four speakers and two reactors to provide responses.

The first panel included Donald Chi, Clemencia Vargas, and Julie Frantsve-Hawley, who focused on an overview of the science related to dental caries in children and childhood obesity. Jonathan Shenkin and Linda Southward were reactors.

The second panel included Barbara Greenberg, Robin Wright, Ankit Sanghavi, and Kimon Divaris, who focused on what can be done. Patricia Braun and Jane Forrest were reactors.

And the third panel included Diane Dooley, Lisa Mallonee, and Mary Foley, who focused on supporting and promoting involvement in efforts to prevent dental caries in children and reduce childhood obesity. Burton Edelstein and Claude Earl Fox were reactors.

Key findings from the scientific literature reviews and national surveys of pediatric dentists and dental hygienists presented at the conference, as well as proposed strategies, are listed below.

Findings

- There is growing recognition among oral health professionals of their dual role in preventing childhood obesity and dental caries by targeting SSB consumption.\(^\text{10}\)

- Many elements of the food environment (i.e., elements that influence individuals’ food choices and food availability), the natural and built environment (i.e., community design factors that may also contribute to levels of physical activity and access to food), and the social environment (i.e., elements associated with resources and limitations related to a family’s or an individual’s socioeconomic position) are associated with weight in children under age 12.\(^\text{11}\)
Results of a systematic review support a positive association between consumption of SCBs and total and central adiposity among children under age 12. This association is most consistent for total adiposity among children under age 5.\textsuperscript{12}

Evidence of dental schools’ and dental hygiene programs’ efforts to address obesity and SSB consumption in children in their curricula is scant, and Commission on Dental Accreditation standards make only sporadic reference to diet and nutrition.\textsuperscript{13}

In a survey of pediatric dentists, more respondents stated that they offer childhood obesity interventions than in previous surveys, but a small percentage suggested that a child’s weight is seen as a medical rather than an oral health issue.\textsuperscript{14}

Most pediatric dentists provide interventions related to consumption of SSBs, perceiving the issue as integral to their care of children.\textsuperscript{14}

Most dental hygienists provide parents with advice on children’s consumption of SSBs; however, few offer advice on preventing childhood obesity.\textsuperscript{15}

**Proposed Strategies**

Following each panel presentation were structured breakout sessions for participants to build upon the panel presentations and contribute strategies to promote the conference goal of engaging the oral health community in childhood-obesity prevention. Proposed strategies from the breakout sessions follow.
health centers, federally qualified health centers, and other integrated health-care-delivery systems to engage in efforts to prevent childhood obesity and dental caries.

- Evaluate oral-health-care-based childhood-obesity-screening and referral programs (e.g., private practices, public health clinics), and identify characteristics, policies, and practices that make them successful.

- Develop and test interventions to improve understanding of the effects of SSB consumption on dental caries and obesity in children and to identify common risk factors.

- Develop tailored home-, community-, and practice-based behavioral interventions and behavior-modification tools to reduce consumption of SSBs and promote positive dietary habits to prevent dental caries and obesity in children.

- Develop communication strategies and patient referral systems between oral health professionals and pediatric primary care health professionals or dietitians/nutritionists.

- Assess parents’ attitudes toward childhood obesity screening and referrals by oral health professionals to pediatric primary care health professionals or dietitians/nutritionists.

**Research**

- Develop content and test ways to best incorporate childhood-obesity-screening and prevention content into dental education, dental hygiene education, continuing education, and dental practices.

- Develop interdisciplinary models of care and referral within academic settings, community

**Dental Students’ Education and Training**

- Modify dental school and dental hygiene program curricula to include risk factors associated with dental caries and obesity in children, as well as the role of oral health professionals in preventing these diseases.
• Develop new standards or enhance Commission on Dental Accreditation standards to increase dental students’ and dental hygiene students’ knowledge about childhood obesity and skills in screening for and preventing it.

• Train dental students and dental hygiene students on using effective communication techniques (e.g., active listening, motivational interviewing, teach back) and handling potentially difficult conversations about patients’ weights and eating behaviors.

**Oral Health Professionals’ Continuing Education and Training**

• Conduct courses and campaigns to improve oral health professionals’ knowledge about childhood obesity, screening, communication techniques, and patient referrals to pediatric primary care health professionals or dietitians/nutritionists.

• Develop guidelines and care pathways to help oral health professionals screen for childhood obesity, educate children and their parents about obesity prevention, and refer children who are at risk for obesity.

• Offer continuing education on communication techniques (e.g., active listening, motivational interviewing, teach back) and handling potentially difficult conversations about patients’ weights and eating behaviors.

**Advocacy/Policy**

• Engage in making the food environments healthier—for example, by taking part in soda-tax legislative efforts, encouraging directing of tax revenue toward health services, and restricting children’s access to SSBs.
• Encourage oral health organizations to develop guidelines and policies on identifying children at risk for obesity, education programs, and referrals.

• Encourage oral health professional organizations to have strong conflict-of-interest policies in place for presentations and published articles and for sponsorship of professional meetings and continuing education courses.

• Provide oral health professionals with training on how to effectively engage in advocacy and policy activities to prevent dental caries and childhood obesity.

**Consumer-Based Education Interventions**

• Share simple messages that oral health professionals can use with children and families to help them reduce consumption of SSBs and choose healthier beverages (e.g., fluoridated water, plain milk).

• Launch a national campaign to encourage people to choose healthier beverages (e.g., fluoridated water, plain milk) instead of SSBs.

• Work with families to adapt values, attitudes, and practices to reduce children’s risk for dental caries and obesity.

**Interprofessional Collaboration**

• Establish approaches to ensure interdisciplinary coordination and collaboration to promote screening for and prevention of dental caries and obesity and to facilitate effective referrals.

**Reimbursement**

• Integrate or link electronic dental and medical records and add information about the child’s weight, height, and obesity risk to patient history forms to track trends, and provide referrals as appropriate.

• Engage dietitians/nutritionists to provide obesity screening, education, and counseling in dental and medical practices.

• Work with third-party payers to establish policies to reimburse oral health professionals for services to prevent childhood obesity.

• Design and test innovative payment models that incentivize health professionals’ delivery of childhood-obesity-prevention services.
• Pursue opportunities with state and city health departments, tribal organizations, and national and community organizations to prevent chronic diseases, such as diabetes, dental caries, and obesity.

• Develop a new current dental terminology (CDT) code that includes nutrition education for the prevention of both dental caries and obesity.

Conclusion

Thanks to the support of RWJF and the participation of key leaders and organizations, this national conference was an important first step in engaging the oral health community in contributing to the prevention of childhood obesity. Much work remains; however, the importance of interprofessional collaboration was stressed repeatedly throughout the event. Health professionals need to work together and with families to prevent childhood obesity. The ultimate goal is to help ensure that all children in our country have healthy weights, good oral health, and, in turn, the opportunity to lead healthy, happy, and productive lives.

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References


