3-4. Obesity, Nutrition, and Oral Health

Nutrition and dietary habits can have a direct impact on both oral health and body weight. Because diet is a modifiable risk factor for both obesity and dental diseases, public health activities targeting dietary habits offer the potential to improve outcomes associated with both physical and oral health.

Environmental Scan of Publications

Program Settings and Scope

Results of this environmental scan found that public health activities targeting obesity, nutrition, and oral health primarily address sugar-sweetened beverage consumption.

Beverage choice is the target of numerous educational campaigns. Overall, public health activities targeting this risk behavior can be categorized as:

1) Legislative campaigns to implement sugar-sweetened beverage excise taxes ("soda taxes")
2) Educational campaigns to promote healthy beverage choice, including drinking water availability and sanitation
3) Cross-disciplinary referrals for clinical interventions targeting dietary habits and weight

Community Oral Health Programs

Most local health agencies provide some form of dietary instruction to individual patients or population groups (e.g., schoolchildren). Twenty organizations (of 30 survey respondents) noted that they target diet/nutrition as a risk factor while educating their clientele. Two local organizations specifically indicated that there is a formal mechanism for referral of a perceived medical need for either diet/nutrition or weight reduction to the appropriate health care provider:

- The oral health program at **Health Care for the Homeless** (Baltimore, MD) refers many of its patients for nutrition counseling.
- **Nationwide Children's Hospital** (Columbus, OH) has a mechanism for referring obese children.

Health Care for the Homeless also provides small group sessions about diet/nutrition. Since part of its target clientele is those with special health care needs, **St. Ann Center-Gardetto Family Dental Clinic** (Milwaukee, WI) provides instruction to caregivers about oral hygiene and dietary issues.

One community oral health program indicated that **Community Dental Services, Inc.**, (Albuquerque, NM) partners with the local foodbank to screen all patients for food insecurity. If a patient answers affirmatively to any of a series of screening questions and they also are being treated for periodontal disease, then the patient is "prescribed" access to free foods at a special Healthy Foods Center.

Some oral health programs have health promotion and education programs that target both oral and overall health outcomes:

- The **Alaska Native Tribal Health Consortium** (Anchorage, AK) collaborates with the state dental director in a statewide preventive initiative to fight obesity.
- The **Open Door Family Medical Centers** in New York use diet/nutritional strategies to prevent childhood obesity and dental caries.

State Chronic Disease and Oral Health Programs

Six of the responding 19 chronic disease directors indicated that they cooperate with their oral health counterparts in developing, implementing, and/or collecting height and weight information to assess BMI, conducted when school-aged children are generally also being assessed for oral disease (e.g., during third grade): Connecticut, Idaho, North Dakota, Ohio, Oregon, and Wisconsin. Such collaborations are enhanced when the chronic disease and oral health programs are located within the same administrative unit, as seen in Connecticut and Ohio.

Wisconsin's Chronic Disease Program provides the content expertise about height and weight

measurement to oral health staff who perform these procedures in conjunction with an oral screening.

According to chronic disease directors, nine states work closely with the state oral health program on educational and policy efforts that will reduce the consumption of sugar-sweetened beverages and increase water intake: Alaska, Colorado, Connecticut, Iowa, New York, Oregon, Pennsylvania, Virginia, and West Virginia.

Alaska, for example, has collaborated substantially with its state oral health and obesity prevention programs through coordinated social marketing campaigns about reducing consumption of sugary drinks. Also, in some states (e.g., West Virginia), representatives from both the chronic disease and oral health programs serve on committees where more proactive measures, such as a sugar-sweetened beverage tax, are under consideration.

Twenty-six oral health programs responded to the online survey. Of the 17 state oral health programs that conduct health promotion and education activities to address common risk factors for oral health and chronic diseases, 14 states are involved in efforts relating to diet/nutrition. Many state oral health programs participate as coalition members to address these common risk factors.

Several states (Connecticut, Idaho, North Dakota, Ohio, Oregon, and Wisconsin) also work collaboratively with chronic disease programs in collecting weight and BMI measurements when oral health staff perform dental screenings and examinations for needs assessment efforts.

California has initiated a campaign to ReThink Your Drink, which focuses on encouraging people to drink (hopefully fluoridated) tap water instead of sugar-sweetened beverages.

New Hampshire and West Virginia are exploring the potential of taxing beverages containing sugar as part of initiatives to reduce dental caries and other chronic diseases and conditions.

State Oral Health Plans

Several current state oral health plans directly address either diet or nutrition and how it impacts oral health.

- South Dakota addresses the issue of healthy dietary intake, which includes decreasing the consumption of sweetened beverages, in an objective relating to education and awareness.
- Alaska is developing and implementing strategies to reduce the consumption of sugar-sweetened beverages by children, including an initiative at the Alaska Native Medical Center to "Stop the Pop." Additionally, some school districts in Alaska have reduced the availability of soda pop during school hours, while there have been efforts to encourage other schools to adopt policies to reduce sugar-sweetened beverages by replacing them with healthier alternatives.
- Oregon is attempting to expand evidence-based oral health programs in schools by educating school communities about the impact of sweetened drinks and other junk foods and the possibility of restricting the marketing of these products on school grounds.
- Minnesota has an objective that is targeted at a different audience. The state health department has collaborated with the Minnesota Hospital Association (MHA) to reduce oral disease and mitigate risks by promoting the effect of diet and nutrition on oral health to hospital food service directors, older-adult service establishments (i.e., assisted living and nursing homes), and nutrition staff at such facilities. In addition, the state health department intends to provide educational sessions about the relationship between diet and dental disease at MHA conferences.
- West Virginia **is** exploring financial strategies within their state oral health plan, such as a soft drink tax, to encourage residents to make healthier choices.

Conclusions

Integrated efforts to target obesity were seen primarily at the state level; several state oral health and chronic disease programs collect information about BMI through routine surveillance. Integrated efforts targeting nutrition largely focus on reducing sugar-sweetened beverage consumption and increasing water consumption. Several community oral health programs report local activities

related to dietary counseling, improving food security, and dental referrals for nutritional counseling.

Challenges

- Limited information was found about interventions conducted within health care systems or in safety net clinical settings.
- Evidence of the effects of public health activities related to nutrition and oral health outcomes was lacking.

Recommendations

1) Given the diversity of educational campaigns and legislative efforts related to sugar-sweetened beverage consumption, applied research should evaluate oral outcomes associated with these interventions. Examples include effects of soda taxes and drinking water campaigns on oral health.
2) Develop continuing education for dental providers to provide specific nutritional counseling, especially as it relates to beverage choice, and referrals to primary care for care coordination.