November 2, 2018

Martha J. Somerman, DDS, PhD
Director, National Institute of Dental and Craniofacial Research
National Institutes of Health
Building 31, Room 2C39
31 Center Dr.
Bethesda, MD 20814

Re: Interdisciplinary Approaches to Promote Adolescents' Oral Health and Reduce Disparities

Dear Dr. Somerman:

On behalf of the 3,400 individual and 103 institutional members of the American Association for Dental Research (AADR), thank you for the opportunity to provide input on the NIDCR 2030 proposed research initiative, “Interdisciplinary Approaches to Promote Adolescents’ Oral Health and Reduce Disparities.” Overall, the concept is timely and deals with a scientifically important arena and a developmental period (i.e., adolescence) that is an important transition to independence in terms of oral health-related behaviors. The goals, research opportunities and specific areas of interest described in the concept clearance are congruent with the priorities of AADR members conducting research in the fields of cariology; pediatric oral health; behavioral, epidemiologic and health services research; and periodontology, among others. These members have identified the research gaps and potential therapeutic applications described below.

**Definition of adolescence.** The concept clearance defines adolescence from ages 12-19. As some individuals in this age range attend college, consideration of a broader range, up to age 21 or even 24, would be helpful and would expand the initiative to include adolescents and young people. In addition, as unhealthy behaviors, such as tobacco and alcohol misuse or unhealthy diets may develop in late adolescence and young adulthood, limiting interdisciplinary approaches to age 19 may lessen the impact of the initiative.

**Eating disorders and oral health.** According to the National Comorbidity Survey Replication, the median age of onset of bulimia is 18,¹ so specific inclusion of oral health research on bulimic patients would be wise. A recent systematic review identified several oral health manifestations of bulimia. In particular, specific patterns of tooth erosion can be the first visible indicators of bulimia, with dentists and hygienists playing a crucial role in detecting this problem and arranging for referral. There are numerous oral health problems in people with bulimia including an increased risk of dental caries, reduced salivary flow, parotid gland enlargement and dry mouth either associated with antidepressants used for treatment or the underlying condition itself; and differential behaviors, such as oral health care or dietary habits. However, the systematic review points to several evidence gaps in reported studies, specifically the need to
stratify bulimics based on treatment type and eating disorder type as some studies mix all eating disorders or bulimia types together; for longitudinal studies to understand long-term oral health effects; and for research on men who suffer from bulimia. NIDCR should collaborate with the National Institute of Mental Health on this area of research.

Adolescent e-cigarette use. AADR applauds NIDCR’s previous investments in e-cigarette research and encourages continued investment in this area. According to Food and Drug Administration Commissioner, Dr. Scott Gottlieb, e-cigarette use among adolescents has reached “epidemic” levels. E-cigarettes are the most popular tobacco product used by middle and high school students, and there is evidence that e-cigarettes may lead adolescents who never would have smoked combustible cigarettes to do so. Studies have also shown differential e-cigarette use based on race and future college plans with Whites and Hispanics and those with plans to complete fewer than 4 years of college more likely to use e-cigarettes. Longitudinal studies to assess long-term oral health effects of e-cigarette use are needed, especially those that investigate any role e-cigarettes may play in further driving oral health disparities.

Other addictive and potentially harmful behaviors and substance use. Other topics that may fit within this proposed research initiative include oral effects of addictive or risky behaviors (e.g. video games and computer usage, risky sexual behaviors, piercing and self-mutilation, etc.) and the use of drugs and alcohol. Research on marijuana is especially timely as state and local governments move towards decriminalization and legalization for recreational or medical purposes. These new laws may impact marijuana availability, patterns of use and formulation (i.e., constituents; edible versus inhaled, etc.). Finally, AADR recommends research on the impact of teen pregnancy on maternal and child oral health within this initiative.

Once again, AADR appreciates the opportunity to provide input on this important proposed research initiative. AADR stands ready to work with NIDCR to advance research on promoting adolescent oral health and reducing disparities. If you have any further questions, please contact Dr. Seun Ajiboye, Director of Science Policy and Government Affairs, at sajiboye@iadr.org.

Sincerely,

Christopher H. Fox, DMD, DMSc
Chief Executive Officer

Maria Emanuel Ryan, DDS, PhD
President

Practice-based research.
References


