

RESEARCH OF IMPORTANCE TO THE PRACTICING DENTIST, 2010-2011*

Mission Statement

A major objective of the ADA is to promote a good quality of life by improving the oral health of the public and encouraging optimal health behaviors. To achieve this objective and to support the ADA's goal to be America's leading advocate for oral health, it is imperative that the ADA take a leading role in promoting, conducting and critically reviewing research on topics related to dentistry and its relationship to the overall health of the individual. The ADA should serve as a facilitator of the national dental research effort, identify priority topics for research, and ensure the timely dissemination of information to the profession.

STRUCTURE OF THE ADA RESEARCH AGENDA

The Research Agenda targets three to five primary goals that remain consistent for at least two years as targeted research priorities. The corresponding objectives are reviewed annually. Updates are based on emerging research needs and input from members on priority clinical topics in dentistry.

RESEARCH AGENDA TOPICS

Goal 1: To understand the social, behavioral and biological determinants of oral and dental diseases and their impact on the provision of dental care.

Objective 1-1: Evaluate the application of risk assessment, risk communication and other risk management strategies (including development and/or validation of evidence-based risk assessment instruments) in the diagnosis and treatment of pediatric and adult caries, periodontal diseases, and oral cancer, and their effectiveness in improving oral health outcomes.

Objective 1-2: Enhance understanding of factors related to access to—and utilization of—dental services across the age spectrum, from pediatric to geriatric populations, with emphasis on:

- increasing the health literacy of the public about oral health, including its relation to overall health, and evaluating health literacy interventions to improve oral disease prevention behaviors and oral health outcomes, particularly in underserved populations; and
- reducing early childhood caries in at-risk populations.

Objective 1-3: Investigate and develop therapies for the prevention, reversal and non-surgical management of dental caries in all age groups.

Goal 2: To understand the scientific basis of emerging issues and therapies of interest to the practice of dentistry.

Objective 2-1: Evaluate the safety and effectiveness of new and existing diagnostic, therapeutic and cosmetic products, methods, instruments and technologies used in dentistry through longitudinal assessment of safety and patient outcomes, including pre- and post-market studies. Examples of priority topics to help inform clinicians include but are not limited to:

- determine the effectiveness of visual/tactile examination and adjunctive devices and/or procedures for detection of pre-malignant/malignant lesions, and evaluate the impact of adjunctive detection devices and/or techniques on patient outcomes;

- evaluate the safety and effectiveness of cone beam computed tomography or other emerging imaging technologies versus standard radiography for dental applications;
- research on the short- and long-term safety of tooth whitening products and procedures;
- laser therapies, biomimetic materials and other novel restorative materials.

Objective 2-2: Investigate, develop and clinically evaluate therapies and therapeutic materials appropriate for prophylaxis, tissue engineering, healing and/or regeneration of diseased teeth and bone structures.

Objective 2-3: Evaluate the human health and environmental effects of dental practice.

Goal 3: To conduct research in support of the application of evidence-based dentistry.

Objective 3-1: Develop, test and validate methods for assessing outcomes related to the use of evidence-based clinical recommendations and clinical practice guidelines in dentistry.

Objective 3-2: Develop and implement improved methods and processes to increase the impact of dental practice-based research networks as a means to address clinically relevant research questions and promote collaborative investigations of preventive and therapeutic interventions that support the advancement of oral health care.

Goal 4: To understand the scientific basis of the relationship between oral health and systemic conditions, and to evaluate the impact of dental interventions on these systemic conditions.

Objective 4-1: Investigate how oral and systemic conditions and diseases affect each other to determine causality and the effect of therapies on clinical outcomes of both the oral and systemic health of the patient.

Objective 4-2: Investigate the uses of non-invasive salivary and oral fluid diagnostics to assist in the early detection and surveillance of oral and systemic conditions, with emphasis on elucidating the scientific basis for detection of systemic diseases in saliva.

The American Dental Association's most important scientific responsibilities are in the area of knowledge and technology transfer and in assuring that the profession is kept abreast of scientific and technological advancements. With this in mind, the Council on Scientific Affairs develops an annual Research Agenda to identify the critical research needs of today's practitioners, and to advance scientific research on the highest priority treatment-oriented topics, and emerging issues of importance in the management of oral diseases. The Council believes that these issues have short- and long-term impact on the quality of patient care and the continuing development of dental practice. The Council wishes to make clear that the Research Agenda is not exhaustive, but rather highlights priority topics that are directly related to patient care, answerable, and likely to significantly impact the practice of dentistry.

*Approved by the ADA Council on Scientific Affairs and the ADA Board of Trustees, July 2010.