

# Priorities for Research

Agenda to Support the Future of Dietetics

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**American Dietetic Association**  
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# Priorities for Research

## Agenda to Support the Future of Dietetics

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### TABLE OF CONTENTS

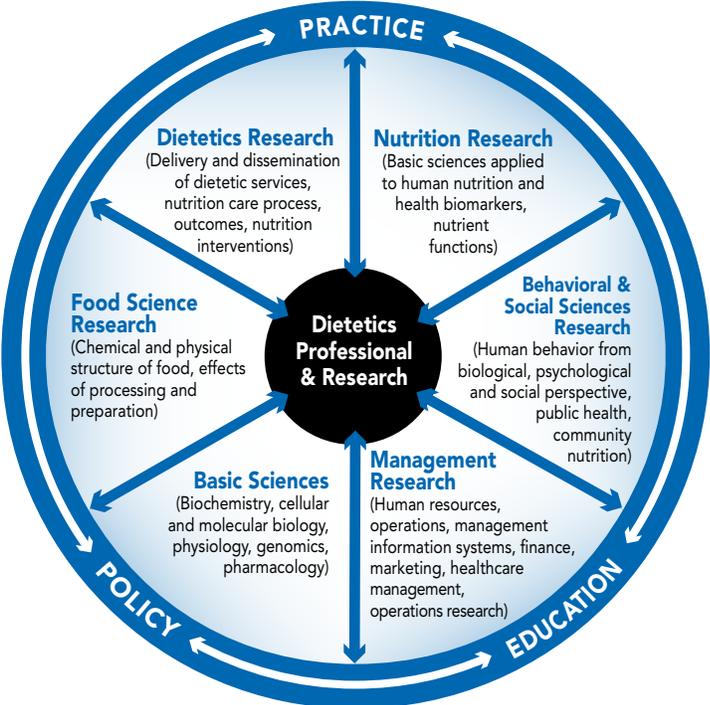
Executive Summary .....	3
Core Research Priorities .....	5
Behavioral and Social Sciences Research	
Food Science Research	
Basic Physiology Research and Nutrition Research	
Dietetics Research Priorities .....	8
Dietetics Research	
Conclusion .....	10
Appendix A .....	11
Research Philosophy and Roles	



**American Dietetic Association**

# EXECUTIVE SUMMARY

The Research Agenda to support the Future of Dietetics of the American Dietetic Association identifies research priorities in the areas of dietetics, nutrition, behavioral and social sciences, management, basic science, and food science leading to the promotion of optimal nutrition, health and well-being for all people. The diagram below identifies the types of research that are critical to the dietetics profession.



ADA has prioritized specific areas of research considered critical to the advancement and practice of the dietetics profession. These research priorities have been divided to reflect two categories of research: core research and dietetics research. Core research (basic sciences, nutrition, lifestyle (behavioral and social sciences) and food science) is fundamental to the foundation of the dietetics profession and is often accomplished by dietetics researchers in collaboration with other researchers in those specific disciplines. Dietetics research further develops principles from the core research that are used to formulate policies at the national level.

Comparison with the 2002 survey showed there has been no increase in the number of active dietetics researchers in the four years between surveys, in spite of the fact that there are now over 300 more doctoral ADA members. In both surveys, there appear to be about 400 active ADA researchers; those who consistently participate in research and publish their findings. A decrease in number of projects per year per active researcher from 1.7 to 1.4 suggests that active ADA researchers may be less involved in research now than previously. This decrease occurred in spite of the percentage of active researchers who initiated two or more projects per year increasing from 10 to 32%.

The Research Committee, which is comprised of members representing a variety of practice areas and practice settings, in developing this research priorities document, reviewed input from across the ADA membership including the ADA House of Delegates members and their

constituents, Dietetic Practice Group leadership and membership, ADA members who are researchers, ADA Board of Directors and external stakeholders and results from the Evidence Analysis Library that reflect areas of dietetics needing additional research support. This input was synthesized into the following six priority research areas.

The research priorities described in this document serve as the basis for communication and advocacy among stakeholders in the broader research and policy community. The ADA, ADAF, and other organizational units act as advocates, facilitators, conveners, educators, disseminators, and to a lesser degree funders of the priority research. An explanation of the roles in relation to the designated priority areas is provided in the Research Philosophy provided in Appendix A.

Guided by the above input, the following are identified as priority research areas:

### CORE RESEARCH PRIORITIES

- Nutrition and Lifestyle Change Interventions to Prevent or Treat Obesity and Chronic Diseases
- Safe, Secure and Sustainable Food Supply
- Nutrients and Systems Biology (e.g. Nutrigenetics and Nutrigenomics)

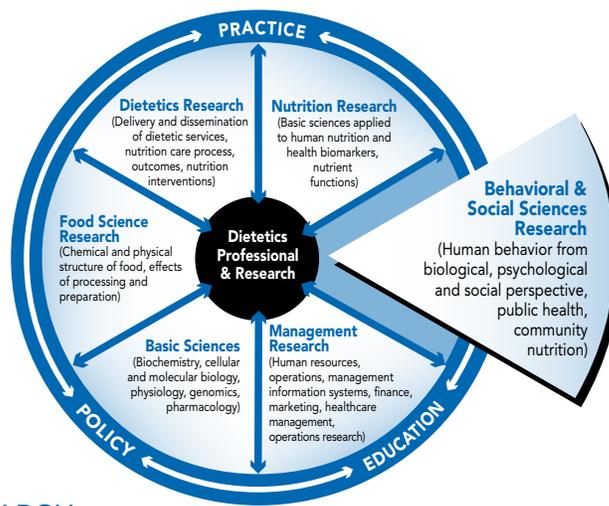
### DIETETICS-SPECIFIC RESEARCH PRIORITIES

- Nutrition Care Process and Health Outcome Measures
- Delivery and Reimbursement of Dietetic Services
- Dietetics Education and Retention

This research agenda will help guide ADA decisions regarding research directions and use of resources over the coming years. The priorities derive from a responsibility to develop and implement strategies, programs and tools to assist Registered Dietitians and Dietetic Technicians, Registered as they work toward the goal of promoting optimal nutrition, health and well-being for all people. The priorities will be updated periodically and will be used to gauge the success of strategic research goals of the profession. The priorities will serve as the basis for advocacy for increased funding and research activity of both members and non-members. Much of the priority research will require dietetics professionals to work collaboratively to advance knowledge.

# CORE RESEARCH PRIORITIES

The Dietetics Profession embodies the integration of principles from multiple core research areas. By its very nature, the Dietetics Profession is collaborative, interactive, multi-disciplinary and translational. Research in these areas is best accomplished by dietetics researchers in collaboration with research experts in their respective disciplines. The types of research identified in these core areas reflects and expands knowledge of nutrients, food and the lifestyle behaviors needed to best encompass optimal nutritional status both in prevention and treatment of disease. Research that both investigates etiologic relationships and translates best practices into policy and regulations is central to the foundation of this profession. A 2006 survey of ADA member researchers indicated that 15% reported obesity was their primary focus, 10% reported public education/community nutrition, 7% reported disease prevention, and 6% reported behavior change studies. These qualified RD principal investigators are currently working collaboratively with other disciplines contributing to these areas. In order for ADA to enhance and expand upon its core research priorities, funding and other support will be required.



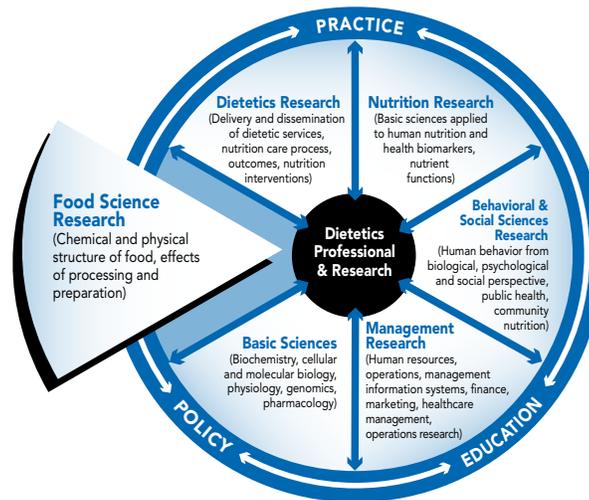
## BEHAVIORAL AND SOCIAL SCIENCES RESEARCH

### 1. Research examining effective nutrition and lifestyle education, communication, and behavior change strategies for prevention and treatment of obesity and chronic or acute disease will be critical to remain leaders in food and nutrition interventions.

- Identify effective roles and strategies for Registered Dietitians and Dietetic Technicians, Registered to use in providing nutrition care throughout the lifecycle that results in disease prevention/risk reduction or improves disease management.
- Identify drivers, barriers and models that impact the effectiveness of translating and implementing research findings into tailored interventions for individuals, ethnic groups, communities and cultures.
- Identify the most effective behavioral change strategies for specific subpopulations and/or various settings.
- Determine the most effective communication strategies and messages for specific subpopulations, underserved populations and/or various settings.
- Identify efficacy of new and innovative technologies to promote behavior change.

The most likely role(s) for ADA as an organization promoting this research priority is to disseminate research findings and serve as an education resource. Other roles would include serving as an advocate for research in this area and facilitating partnerships and collaboration.

The most likely role(s) for ADAF for this research priority is to fund small pilot projects with RDs as PIs and advocate for research funding by other organizations/foundations. (See page 10 for full description of these roles.)



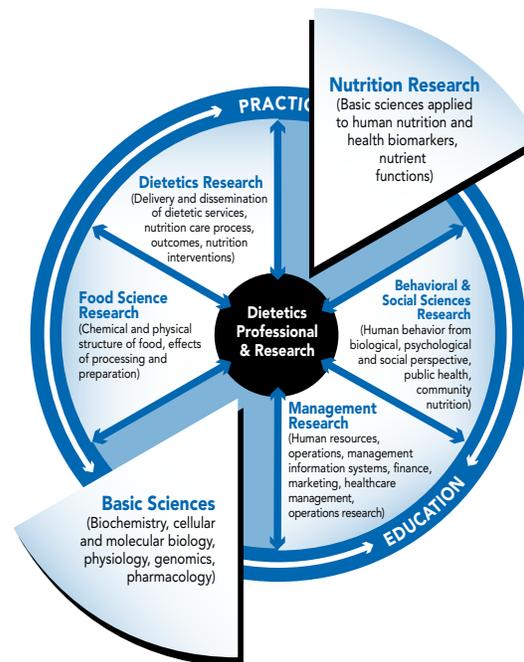
## FOOD SCIENCE RESEARCH

### Safe, Secure and Sustainable Food Supply

#### 2. Research examining ways to improve, evaluate and provide access to a safe, culturally appropriate, sustainable food and water supply will be critical to protect the health of the public.

- Expand and update food composition databases.
- Identify optimal strategies to protect our food and water supply from the threat of bioterrorism at critical control points throughout the food chain.
- Identify the appropriate behavioral change strategies that will result in the adoption of safe food production and handling practices by individuals in high-risk populations or foodservice personnel and others providing food to these targeted groups.
- Assess the effectiveness and efficiency of food assistance programs in meeting the nutritional needs of diverse populations.
- Identify the impact of individual choices, lifestyle and advocacy on the built environment and natural environment (ecology), food distribution systems, other people, and the economic success of our local and international communities.
- Identify nutritional, safety and environmental effects of changes in food composition and availability (e.g. fortification, organic production, biotechnology, production systems and new ingredients introduced into the food supply).

The most likely role(s) for ADA for this research priority will be to advocate for others to fund these research activities and serve as an educational resource and dissemination of the research findings as they become available. The most likely role(s) for ADAF for this research priority is to advocate for funding in this priority area.



## BASIC PHYSIOLOGY RESEARCH AND NUTRITION RESEARCH

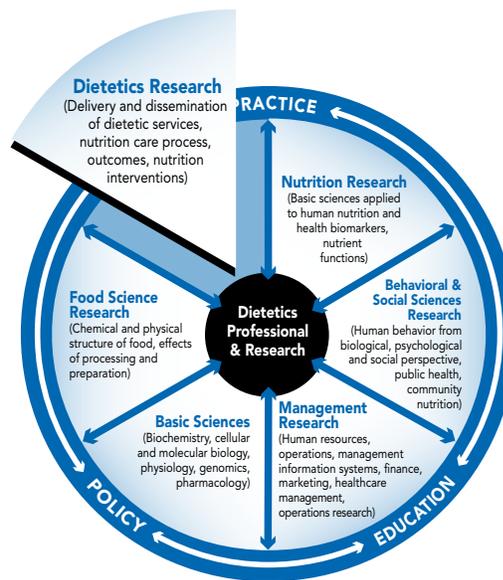
### 3. Nutrition and Systems Biology (Nutrigenetics and Nutrigenomics) Research exploring the interaction among diet, genetics, metabolomics, proteomics and transcriptomics will be critical to position RDs as the provider of personalized nutrition.

- Explore how modifications in intake of energy, nutrients and other bioactive food components impact or change individuals' cellular metabolic response (e.g. *gene expression, translation and response*).
- Identify which genotypes, genotype combinations, methylation patterns and gene environment interactions that are most likely to benefit from dietary modifications to promote health.
- Study how and to what extent research related to nutritional genomics and epigenetics can be responsibly translated into the practice of dietetics as personalized nutrition interventions.

The most likely role(s) for ADA for this research priority is to serve as disseminator and educator as well as advocate for research funding for this area. The most likely role(s) for ADAF for this research priority is advocate for funding in this area from other foundations.

# DIETETICS RESEARCH PRIORITIES

The second category of research is the applied practice research in dietetics. This research will have the greatest impact and application to professionals practicing in the field of dietetics and will be accomplished by dietetics researchers serving as the principal investigators. In addition to the topics below it is important to research the impact of policies and regulations in relation to advancement of each of the designated dietetics-related research areas. This focus for our profession's research priorities is substantiated by recent results from the Research Survey of the ADA that indicated that over 11 percent of those surveyed were involved in research to evaluate the effectiveness of evidence-based medical nutrition therapy.



## DIETETICS RESEARCH

### Nutrition Care Process and Health Outcome Measures

**1. Research examining the specific interactions of the components of the Nutrition Care Process, including methods for nutrition assessment, validity of nutrition diagnosis, effect of nutrition interventions, and identification of appropriate health outcome measures for individuals and populations will be critical for the advancement of the dietetics profession.**

- Quantify the accuracy and cost-effectiveness of field methods for assessing nutritional status, including energy and nutrient intakes, energy expenditure, body composition, and biochemical parameters for different age groups and diverse ethnic populations.
- Identify the reliable and valid indicators for diet-responsive predictors of disease risk.
- Identify the reliable and valid nutrition biomarkers of health outcomes, as well as nutritional parameters and/or intermediate markers of health outcomes in free living, acute or long-term care settings.
- Test the validity and usefulness of the nutrition diagnoses to improve nutrition care outcomes and reimbursement.

The most likely role(s) for ADA for this research priority is to serve as a convener to explore new approaches to answering these questions. The most likely role(s) for ADAF for this research priority is funding of small research projects through the DBPRN or pilot projects to be used as part of a subsequent federal funding application.

## **2. Research to develop the most effective methods for the delivery of dietetic services and payment for those services.**

- Quantify and compare the cost-effectiveness of systems and technology supporting the delivery of quality products and services in various practice settings.
- Study and test the appropriate health outcome measures/indicators related to dietetic services and the best methods of measurement.
- Study and forecast the effect of changes within the workforce (diversity, availability, skills and competencies, value systems, communication) on food and nutrition delivery systems.
- Identify effective strategies and systems to ensure access to and reimbursement for dietetic services including impact of policy and regulations (e.g. licensure).
- Validate indicators that characterize quality products and services in various dietetic practice settings.
- Identify cost effective standards, measurement tools and methodologies that can be implemented in various dietetic practice settings with various dietetics practitioners.
- Identify appropriate customer satisfaction models and perceptions of value for dietetics services for various dietetic practice settings.
- Identify drivers, barriers and models that impact the effectiveness of translating and implementing research findings into dietetic services.

The most likely role(s) for ADA for this research priority is to serve as advocate for funding, and facilitator of partnerships and collaborations and disseminator of research findings. The most likely role(s) for ADAF for this research priority is to serve as a funder of small research projects through the DBPRN and advocate for funding from other foundations.

## **3. Research examining the best methods for attracting, educating and retaining competent *ADA members and credentialed Registered Dietitians and Dietetic Technicians, Registered* will be critical to the future of the dietetics profession.**

- Identify the most effective educational methods/strategies and requirements to facilitate competent dietetics practice throughout the professionals' career.
- Identify career paths that position ADA members and credentialed to be in leadership positions.
- Identify trends in employment of Registered Dietitians and Dietetic Technicians, Registered.
- Identify important factors and effectiveness of strategies to attract and retain credentialed Registered Dietitians and Dietetic Technicians, Registered.

The most likely role(s) for ADA for this research priority is to serve as disseminator, educator, advocator and facilitator of partnerships and collaborations. The most likely role(s) for ADAF for this research priority is to fund small research projects. The most likely role for CDR is funding practice audits. The most likely role for CADE is to support educational standards and requirements which advance the evidence-base of the dietetics profession and support quality research training for individual dietetics professionals.

## CONCLUSION

This document provides a blueprint for ADA's research and advocacy activities in the areas of dietetics, nutrition, lifestyle (behavioral and social), management, basic science and food technologies. Research at ADA is driven by the immediate and pressing needs of the dietetics profession and ADA members as they strive to promote optimal nutrition and well-being for all people. ADA will prioritize resources and advocate support to best meet these needs.

## APPENDIX A A RESEARCH PHILOSOPHY AND ROLES

**The ADA believes that research is the foundation of the profession providing the basis for practice, education and policy.**

*Dietetics is the integration and application of principles derived from the sciences of nutrition, biochemistry, physiology, food science, food management and behavioral and social sciences to achieve and maintain people's health; therefore, dietetics research is a dynamic collaborative and assimilative endeavor. This research is broad in scope ranging from basic to applied practice research.*

Registered Dietitians and Dietetic Technicians, Registered are responsible for practicing research-based dietetics. Both the Code of Ethics and Standards of Professional Practice identify these principles and recognize the roles of Registered Dietitian and Dietetic Technician, Registered in research. The Code of Ethics states that the Registered Dietitian and Dietetic Technician, Registered practices are based on scientific principles and current information. The Standards of Professional Practice states that each Registered Dietitian and Dietetics Technician, Registered effectively applies, participates in or generates research to enhance practice.

The Association uses research to make evidence-based decisions in generating policy, and communicating standards for practice in a variety of roles. The Association accomplishes these goals by advocating, facilitating, convening, funding, disseminating and educating its members. The Association effectively collaborates with other scientists and organizations to best achieve the desired outcomes. These roles are defined as follows:

**Advocacy** = Identifying federal and non-governmental agencies/organizations/individuals who can support the Association's research agenda. Examples of advocacy roles would be for the Association to identify research questions for USDA/ERS or the Robert Wood Johnson Foundation, or to testify before congressional leaders on the importance of research funding for data collection and nutrition monitoring.

**Facilitator** = Targeting key research questions to be answered and facilitating a successful process to answer these questions. For example, ADA would facilitate partnerships or multidisciplinary collaboration between various researchers to find potential funding sources and conduct the research.

**Convener** = Convening key scientists and practitioners from various disciplines to explore new approaches in solving dietetics related research questions. Examples might be convening a meeting to discuss research needed to address childhood weight management treatment and prevention.

**Funder** = Prepares, disseminates and funds research proposals on key research questions important to the profession. Sometimes this process involves funding for research under RFA or RFP and other times the research is actually conducted in house. The amount of funding is dependent on the availability of internal and external funds.

**Educator** = Develops professional development opportunities for members to enhance their knowledge of how to read, interpret, translate, integrate and use research. The Association also provides professional development opportunities for members to enhance their abilities to conduct high quality research.

**Disseminator** = Distributes research results to members and the public through publications, websites, and print and electronic media.



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