Food Systems and Sustainability: Shaping Dietary Guidance

The House of Delegates (HOD) selected the topic of Consumer Awareness and Changing Drivers of Food Choices for discussion at the Spring 2019 meeting. This selection was based on the Council on Future Practice’s (CFP) Visioning Report 2017: A Preferred Path Forward for the Nutrition and Dietetics Profession, the Academy’s Strategic Plan, and delegate input through HOD meetings and surveys. Recognizing the broad scope of this topic, the HOD will examine it through three relevant lenses to achieve meaningful outcomes from the dialogue: food systems and sustainability, evidence-based practice, and communications.

Food systems and sustainability is also a very broad topic, but within the Academy and its Foundation work is already being done in the area. The goal of the dialogue is to inform current efforts as well as to potentially identify new areas to explore. In connecting current Academy work in food systems and sustainability, the focus will be on the relevance of sustainability to consumer food choices and the role of nutrition and dietetics practitioners in guiding these choices through evidence-based practice and communications. These issues will be explored through the areas of education and training, practice, and research.

Terminology

**Food system:** According to Neff and Lawrence in the textbook *Introduction to the US Food System*, a food system encompasses “all the activities and resources that go into producing, distributing, and consuming food; the drivers and outcomes of these processes; and the extensive and complex relationships between system participants and components.”

**Sustainable, resilient, and healthy food and water systems:** According to the Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy Food and Water Systems, a sustainable, resilient, healthy food and water system is one in which “all individuals have equitable and optimal access to food and water, both now and in the future.”

**Evidence-Based Practice:** An approach to health care wherein health practitioners use the best evidence possible, i.e., the most appropriate available to make decisions for individuals, groups and populations. Evidence-based practice values, enhances, and builds on clinical expertise, knowledge of disease mechanisms, and pathophysiology. It involves complex and conscientious decision-making based not only on the available evidence, but also on client characteristics, situations, and preferences. It recognizes that health care is individualized and ever changing, and involves uncertainties and probabilities. Evidence-based practice incorporates successful strategies that improve client outcomes and are derived from various sources of evidence including research, national guidelines, policies,
consensus statements, systematic analysis of clinical experience, quality improvement data, specialized knowledge and skills of experts.

**HOD Meeting Objectives**

1. Determine how to best support evidence-based practice when addressing sustainable food systems with clients, including best practices when there is insufficient evidence.
2. Identify actions that can be taken to position the Academy and its members as trusted sources of dietary guidance around sustainable food systems.
3. Identify actions that can be taken by the Academy and its members to shape and deliver dietary guidance around food systems and sustainability.

- When providing dietary guidance, Registered Dietitian Nutritionists (RDNs) and Nutrition and Dietetic Technicians, Registered (NDTRs) want to be prepared to help consumers navigate the changing landscape of food choices. As consumers navigate dietary choices on the basis of not only nutrition and health but also sustainability, RDNs and NDTRs need to be equipped with knowledge about relationships between diet, health, and sustainability.
- Knowledge about the relationships between diet, health, and sustainability draws from multiple disciplines and can contain a fair amount of tradeoffs and uncertainty. RDNs and NDTRs want to be able to translate strong evidence with clear messaging to consumers.
- When faced with uncharted territory, nutrition and dietetics practitioners must work within the confines of the best available evidence in the absence of the best possible evidence, subsequently building the body of evidence for other practitioners to use in the future.  

- Today’s consumers seek transparency on how, where, and by whom their food is grown, processed, packaged, and distributed, and how revenues from their purchases are allocated.
- Consumers view food – particularly food with benefits – as key to good health and also feel that their purchasing power is more impactful than their voting decisions. Consumers look to social media to make choices and voice opinions. This has led to perceived “experts” being anyone and everyone with a platform such as social and digital media.
- Consumers align purchases with values. For example, Generation Z and Millennials are rewarding and purchasing from small and medium sized companies that align with their own values.
- Increased public interest in the U.S. food supply is accompanied by global concerns over how to adequately nourish a global population of 10 billion by 2050. Issues such as high rates of food
loss and waste,\textsuperscript{8,9} climate change,\textsuperscript{10,11} and yield gaps\textsuperscript{12} underscore the need to make more food available using the same amount of land and fewer inputs.

- Research on the relationships between dietary patterns, environmental impacts, and global food security is relatively nascent; as the literature grows, conflicting methods and results have caused confusion among both health professionals and consumers. Many research efforts in this area have lacked a strong nutritional perspective, and have not included nutrition and dietetics practitioners. An example of a recent report that makes statements about the environmental impact of dietary patterns is the EAT-Lancet Commission on Food, Planet, and Health, which has published reports directed to both the scientific community\textsuperscript{13} and consumers.\textsuperscript{14}

- The link between diets and sustainability has policy relevance. The Scientific Report of the 2015 Dietary Guidelines Advisory Committee included discussion of sustainability,\textsuperscript{15} and the Academy has submitted a public comment regarding the inclusion of sustainability in the 2020 Dietary Guidelines for Americans (DGAs).

- This is a topic of great relevance to nutrition professionals globally. The International Confederation of Dietetic Associations (ICDA) has launched a Food Sustainability Initiative that includes a survey of representatives from member associations including the Academy.

- Many RDNs and NDTRs work in food service and retail settings with “sustainable food purchasing” goals. In these settings, nutrition and dietetics practitioners have the opportunity to influence procurement decisions and shape consumer choices.\textsuperscript{16} There is a need to both inform nutrition and dietetics practitioners in food service and retail settings about best practices in sustainable food purchasing, and to leverage their expertise in improving these best practices.

- It has been argued that delivering patient care that is not evidence-based is unethical as it can result in negative patient outcomes.\textsuperscript{6} When clear, current, and proven evidence-based guidelines exist, exercising evidence-based dietetics practice appears straightforward. However, when the evidence is not of sufficient quality or quantity, or the evidence is conflicting or controversial, nutrition and dietetics practitioners must carefully weigh the existing evidence to make practice decisions. An Academy Evidence-Based Criteria taskforce has been working on recommendations to help develop tools and resources to evaluate the level of evidence as well as criteria to help define evidence based and the corresponding levels.

- Several Learning Needs Codes or Performance Indicators are related to food systems and sustainability but, for many of these code or indicators, less than 50 credentialed practitioners selected them as a part of their current Professional Development Portfolios.

- This topic affects nutrition and dietetics practitioners across all areas; we must maximize and leverage opportunities through education and training, practice, and research. If this is not done, others will step into these roles to help shape dietary guidance as it relates to food systems and sustainability.

- The Academy’s Strategic Plan includes three focus areas and impact goals in (1) Prevention and Well-being, (2) Health Care and Health Systems, and (3) Food and Nutrition Safety and Security, as well as strategy areas.\textsuperscript{2}
  - Sustainable food systems are reflected under the focus area of Food and Nutrition Safety and Security and includes the following Impact Goals:
    - Increase equitable access to and utilization of safe nutritious food and water.
 Advance sustainable nutrition and resilient food systems.
 Leverage innovations in the reduction of food loss and waste.
 Champion legislation and regulations that increase food and nutrition security throughout the life cycle.

o Evidence-based practice is reflected across the three focus areas and is also reflected in the Research Strategy:
   Expand prospective food and nutrition research.
   Conduct systematic reviews and develop evidence-based practice guidelines and position papers in collaboration with key stakeholders.
   Advance global practice-based research network of practitioners and partners to collect data.
   Develop and enhance platforms to host data on evidence-based interventions.
   Collaborate to provide evidence on the effectiveness of food- and nutrition-related interventions using internationally accepted processes and terms.
   Collaborate to advance basic science research related to malnutrition and well-being.

o Communications are reflected in the Advocacy and Communications Strategy:
   Impact food and nutrition policies, and advocate for participation in the legislative and regulatory processes and funding to support nutrition research at local, state, federal and global levels.
   Advocate for health care delivery and payment systems that maximize nutrition services across clinical and community settings.
   Advance global influence through effective alliances.
   Serve as a trusted resource and utilize all media outlets to educate and promote evidence-based practices and science-based resources to practitioners, the public, policy makers, and all stakeholders.

- Relevant Dietetic Practice Groups include Hunger and Environmental Nutrition (HEN), Dietitians and Business Communications (DBC), Food and Culinary Professionals (FCP), Nutrition Education for the Public (NEP), and Vegetarian Nutrition (VN).
- The Academy has a wide-reaching National Spokesperson program and utilizes social, digital, and traditional sources of media. This includes the Nutrition and Dietetics SmartBrief that is available to members and non-member subscribers.
- The Academy’s website maintains a list of resources and organizations in the area of sustainable food systems.
- The Academy has published several key papers on the role of nutrition and dietetics practitioners in this area:
  o In 2007, the Sustainable Food Systems Task Force published a primer paper, “Healthy Land, Healthy People.”
  o In 2014, the Academy established Standards of Professional Performance (SOPP) for RDNs in Sustainable, Resilient, and Healthy Food and Water Systems. The SOPPs are currently being revised.
  o In 2014, the Academy Foundation convened a conference to reach consensus among nutrition leaders regarding the need for RDNs and NDTRs at the intersection of agriculture, nutrition, and health.
  o The Academy has published two relevant position papers: “Nutrition Security in Developing Nations: Sustainable Food, Water, and Health” and “Food Insecurity in the United States.”
• The Accreditation Council for Education in Nutrition and Dietetics’ (ACEND) accreditation standards for dietetic internship programs (DI) and nutrition and dietetics coordinated programs (CP) include a competency relevant to the topic. CRDN 4.6 states that graduates should be able to “propose and use procedures as appropriate to the practice setting to promote sustainability, reduce waste, and protect the environment.”

• Although sustainable food systems is a focus area for nutrition and dietetics practitioners, education gaps remain. ACEND’s Rationale Document contains an Environmental Scan Report which indicates that “interest in food sustainability places additional responsibilities and diverse aptitude prerequisites on nutrition and dietetics practitioners to meet capacity demands.”

• Many of the stakeholders identified gaps in current competencies in areas of research, communication, leadership/management skills, cultural care, interprofessional work, basic food and culinary preparation, and sustainability.

• There is an Agriculture and Sustainability track at the Food & Nutrition Conference & Expo™ (FNCE®), and other continuing education opportunities are available through the Center for Lifelong Learning. Lastly, there is a certificate of training program related to the topic, titled Sustainable Food Systems, and this is also currently under review.

• In a 2011 survey of dietetic internship directors, 50% reported incorporating activities related to sustainable food systems in their programs, and 43% were interested but lacked time or other resources to implement such activities.

• The Academy of Nutrition and Dietetics Foundation started the Future of Food initiative in 2012 with support from National Dairy Council and Feeding America. The goal of the Future of Food Initiative is to support sustainable food systems and a safe and nutritious food supply for the growing world population. The initiative has resulted in the support of fellowships, scientific symposia, publications, toolkits, mini-grants to Academy members, and the development of curricula for dietetic education programs.

• Since July 2018, the Future of Food Initiative has been overseen by the Foundation’s Healthy and Sustainable Food Systems Fellow, Marie Spiker, MSPH, RDN.

• To address gaps in education and training in the area of sustainable food systems, the Future of Food initiative developed the Sustainable, Resilient, and Healthy Food and Water Systems curriculum. The curriculum consists of 120 hours of learning activities for dietetics education programs. The curriculum was created by 24 experts, was pilot tested at 19 sites, and its implementation at additional sites is being evaluated.

• A November 2018 roundtable meeting “Sustainable Food Systems: Creating a Nutrition-Focused Framework for Action” convened 24 RDNs and external experts to identify the role of nutrition and dietetics practitioners in sustainable food systems. Roundtable participants generated a framework for action to identify relevant “entry points” for nutrition and dietetics practitioners to help cultivate sustainable food systems. One of the draft entry points relates to the critical role of nutrition and dietetics practitioners in shaping and delivering dietary guidance. After incorporating feedback from the HOD, DPGs, and other individuals, the framework will be submitted to the Journal of the Academy of Nutrition and Dietetics.

• Through its visioning process, the Council on Future Practice (CFP) released the Change Drivers and Trends Driving the Profession: A Prelude to the Visioning Report 2017. The following are trends, related to the Consumer Awareness and Changing Drivers of Food Choices change driver, impacting the future of the profession:
Agricultural challenges and rapidly changing technology present entrepreneurial opportunities as food companies seek innovative ways to meet consumer demand for healthy foods and demonstrate their social responsibility.

Siloed approaches to agriculture, health, sustainability, and economics are being abandoned for transdisciplinary solutions to reduce hunger, poverty, disease, and environmental destruction.

There is a growing interdependence of countries around the world in sustaining the planet’s national resources.

Consumers demand increasing levels of food transparency to meet their health, social justice, and environmental stewardship aspirations.

**What are the ethical implications?**

- Any decision should follow the Academy’s Principles and the Code of Ethics for the Nutrition and Dietetics Profession.
- There are ethical implications inherent to the topic of food systems sustainability. Sustainability encompasses multiple dimensions including health, the environment, economics, and society; ethical questions are embedded within each of these dimensions. Many consumers seeking guidance on the sustainability of their food choices are also implicitly seeking guidance on the ethical implications of their food choices, thus requiring some knowledge of the ethical implications from nutrition and dietetics practitioners.
- The ability to guide consumer choices relies partly on the strength of the evidence available. When developing programs or conducting and translating research in the area of sustainability, RDNs and NDTRs should be aware of best practices for effective public-private partnerships in nutrition.

The Academy has laid a foundation to help nutrition and dietetics practitioners understand the implications associated with food systems and sustainability, but more must be done to clarify and advance the role of the RDN and NDTR through the areas of education and training, practice, and research. Nutrition and dietetics practitioners must be ready to leverage evidence-based practice and communications skills to maximize opportunities to shape dietary guidance and help consumers navigate the changing drivers of food choices.
References:


Options Food Systems and Sustainability: Shaping Dietary Guidance

As the House of Delegates discusses the Strategic Issue question, they will explore ideas to help advance the role of nutrition and dietetic practitioners in shaping dietary guidance on food systems and sustainability through three areas for action: education and training, practice, and research. The following options for action, generated by the House Leadership Team and the Foundation’s Healthy and Sustainable Food Systems Fellow, are not intended to capture all of the possibilities, but are presented to stimulate creativity, innovation, and dialogue.

Education and Training (both pre-professional and continuing education)

Option A: Incorporate knowledge of sustainable food systems into the breadth of the professional skill set by expanding the availability of sustainable food systems content within dietetics education programs. Possible formats include activities from the sustainable, resilient, and healthy food and water systems curriculum (in its current form, or future iterations), the creation of foundational content through textbook chapters or journal articles, and the delivery of information through webinars and other online platforms.

Potential advantages:

- Because nutrition and dietetics practitioners are likely to interact with sustainability-related issues in a variety of roles in clinical, food service, research, public health, and other settings, incorporating knowledge of sustainable food systems into pre-professional education gives them a foundational level of understanding.

Potential disadvantages:

- It may be challenging for many dietetics education programs to incorporate activities related to sustainable food systems, based on constraints such as time, interest, or expertise.
- If sustainable food systems content is not included in the registration exam, there is less incentive for dietetics education programs to provide training in this content area, and employers and consumers are not able to reliably expect this kind of competency from RDNs and NDTRs.

Option B: Support RDNs and NDTRs in cultivating a depth of competency in sustainable food systems, for those who wish to pursue it. Continuing education could include topics such as understanding the environmental impact of various food production methods, metrics used to measure the multiple dimensions of sustainability, ethical considerations for dietary choices, strategies for sustainable procurement decisions in food service settings, and strategies to reduce wasted food in various settings.

Potential advantages:

- This information is in high demand among current nutrition and dietetics practitioners.
- It allows for potential collaboration and interdisciplinary work on the topic.

Potential disadvantages:

- Creating content is challenging given conflicting information and varying levels of evidence.
Research:

Option A: Strengthen the ability of nutrition and dietetics practitioners to assess the available evidence in food systems and sustainability (EBP) and translate the evidence into recommendations on dietary guidance for consumers.

Potential advantages:

- Nutrition and dietetics practitioners across all sectors can benefit from improving their ability to critically interpret evidence in the area of nutrition science. Expanding this to evidence in the area of food systems sustainability and its implications for food choice is a logical extension of research and critical thinking skills.

Potential disadvantages:

- Just as research within the realm of nutrition science can contain conflicting evidence, research on food systems sustainability can be challenging to interpret and translate because this is a relatively nascent area of research that incorporates methods from many disciplines.

Option B: Amplify the nutrition perspective in collaborative research efforts related to sustainability. Options include having representation of Academy members on interdisciplinary research efforts in the area of sustainable food systems, and funding research related to sustainable food systems.

Potential advantages:

- Interdisciplinary research on the environmental impact of various dietary patterns can be greatly improved with input from nutrition and dietetics practitioners.

Potential disadvantages:

- Employers as well as RDNs and NDTRs have suggested that conducting and analyzing research is a competency area that could be improved. This may impact involvement in projects, especially cross-disciplinary projects.

Practice (including policy):

Option A: Identify principles for nutrition and dietetics practitioners to help consumers navigate food choices amidst complexity, uncertainty, and competing goals.

Potential advantages:

- Because research in this area is new and can contain conflicting information, nutrition and dietetics practitioners seek clear messaging to share with consumers.
- The ability to share best practices in this area.

Potential disadvantages:

- It can be very challenging to come to alignment around the principles – much of the research in this area is highly uncertain, controversial, and relies on expertise from other fields.
• Much of the research in this area is complex and describes trade-offs rather than clear recommendations.

**Option B:** Identify principles for practitioners, utilizing official Academy positions, to help communities, institutions, and policymakers develop procurement decisions and guidelines amidst complexity, uncertainty, and multiple societal goals. These strategies also affect consumers by shaping their environments and the guidelines they are exposed to.

*Potential advantages:*

• This option reinforces nutrition and dietetics practitioners as leaders in the space of dietary guidance.

*Potential disadvantages:*

• There still may be uncertainty and complexity of identifying principles.