



Academy of Nutrition and Dietetics: Revised 2020 Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy Food and Water Systems



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ABSTRACT

Current systems of food production and consumption are challenged by factors such as natural resource constraints, relative unaffordability of nutrient-dense foods, persistent social inequities, and high rates of diet-related disease. Registered dietitian nutritionists (RDNs) play a critical role in protecting the health of current and future populations by advancing sustainable, resilient, and healthy food and water systems. By definition, such systems can meet current dietary needs without jeopardizing the ability to meet the needs of future generations; can withstand or adapt to disturbances over time; and can equitably facilitate disease prevention and well-being for all individuals. This area of practice within nutrition and dietetics requires recognition of the complex interrelationships among individual health and economic, environmental, and social domains of food and nutrition, and allows RDNs to bring unique expertise to diverse interprofessional teams. The Revised 2020 Standards of Professional Performance for RDNs (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy Food and Water Systems update the 2014 standards and cover the following 6 standards of professional performance: Quality in Practice, Competence and Accountability, Provision of Services, Application of Research, Communication and Application of Knowledge, and Utilization and Management of Resources. Within each standard, specific indicators provide measurable action statements that illustrate how the RDN can apply the principles of sustainable food systems to a variety of practice settings. The indicators describe 3 skill levels (ie, competent, proficient, and expert) for RDNs in this focus area.

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Editor's note: Figure 2 that accompanies this article is available online at www.jandonline.org.

THE HUNGER AND ENVIRONMENTAL Nutrition (HEN) Dietetic Practice Group (DPG) of the Academy of Nutrition and Dietetics (Academy), under the guidance of the Academy Quality Management Committee, has revised the Standards of Professional Performance (SOPP) for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems originally published in 2014.¹ The revised document, Academy of Nutrition and Dietetics: Revised 2020 Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in

Sustainable, Resilient, and Healthy Food and Water Systems (henceforth: Sustainable Food Systems) reflects advances in sustainable food systems practice during the past 6 years and replaces the 2014 Standards. This document builds on the Academy of Nutrition and Dietetics: Revised 2017 Standards of Practice (SOP) in Nutrition Care and SOPP for RDNs.² The Academy of Nutrition and Dietetics/Commission on Dietetic Registration's (CDR) Code of Ethics for the Nutrition and Dietetics Profession,³ along with the Academy of Nutrition and Dietetics: Revised 2017 SOP in Nutrition Care and SOPP for RDNs² and Revised 2017 Scope of Practice for the RDN,⁴ guide the practice and performance of RDNs in all settings.

OVERVIEW

Current global and domestic food production systems are placing untenable strain on both human and natural resources, delivering suboptimal benefits

for population health and contributing to a changing climate that, in turn, affects human health and exacerbates inequities.^{5,6} Agricultural practices account for an estimated 34% of global land use,⁷ 70% of water use withdrawn for human purposes,⁸ and 11% of global greenhouse gas emissions,⁹ with a resulting food supply that supports

*Approved April 2020 by the Quality Management Committee of the Academy of Nutrition and Dietetics (Academy) and the Executive Committee of the Hunger and Environmental Nutrition Dietetic Practice Group of the Academy. **Scheduled review date: December 2026.** Questions regarding the Standards of Professional Performance for Registered Dietitian Nutritionists in Sustainable, Resilient, and Healthy Food and Water Systems may be addressed to Academy Quality Management Staff: Dana Buelsing, MS, manager, Quality Standards Operations; and Karen Hui, RDN, LDN, scope/standards of practice specialist, Quality Management at quality@eatright.org.*

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All registered dietitians are nutritionists—but not all nutritionists are registered dietitians. The Academy's Board of Directors and Commission on Dietetic Registration have determined that those who hold the credential Registered Dietitian (RD) may optionally use "Registered Dietitian Nutritionist" (RDN). The 2 credentials have identical meanings. In this document, the authors have chosen to use the term *RDN* to refer to both registered dietitians and registered dietitian nutritionists.

neither optimal nor equitable health and nutrition outcomes. For example, 22% of all children are stunted and 39% of all adults are overweight globally; still, 41 countries face the triple burden of malnutrition via undernutrition, micronutrient deficiency, and overweight, and all countries struggle with at least one burden.¹⁰ Healthy food options remain unaffordable for many, with nutrient-dense foods often more expensive than starchy staples, refined grains, and added sugars and fats¹¹; this is true in all regions, but especially in low-income countries with the highest burdens of micronutrient deficiencies.¹² At the same time that the current global food supply lacks adequate amounts of nutrient-dense foods, such as horticultural crops,¹³ 32% of food produced globally is wasted.¹⁴ Meanwhile, climate change poses many threats to human nutrition through increasing impacts on terrestrial and ocean temperatures, crop yields; and nutrient quality of foods, and effects on socioeconomic systems, such as income, population displacement, and conflict.¹⁵ Furthermore, a global food sovereignty movement¹⁶ points to the persistent struggle of farmers, fishers, including indigenous people and landless workers who produce much of the global food supply, yet often experience hunger, poverty, and lack of political power and control over their livelihoods.¹⁶

Many of these global challenges are mirrored in the United States, and some originate in domestic food systems. Broadly speaking, the United States contributes disproportionately to global resource use and environmental degradation. Studies have estimated that if all countries were to adopt a typical US diet, the amount of global agricultural land would need to increase by 180%.¹⁷⁻¹⁹ The Western diet, characterized by low intake of whole

grains, fruits, and vegetables, and high intake of foods that are processed and high in saturated fat, salt, and sugar, is both heavily reliant on resource-intensive agricultural practices and strongly associated with increased morbidity and mortality.^{20,21} In the United States, vast disparities in healthy food access and diet-related diseases exist along lines of race and class, and agricultural and food industries often rely on the same marginalized populations for labor, including a high proportion of immigrants who may not receive adequate pay, health benefits, or legal protection against labor violations.²²⁻²⁴ The health disparities produced within the food system are often reinforced by other social determinants of health, such as access to education and health care services, exposure to violence and crime, and systemic discrimination and racism.²⁵ An understanding of the social determinants of health is foundational to practice within this focus area. Also important is an awareness of how nutrition outcomes are affected by other sectors; for example, the concept of "commercial determinants of health" describes conflicts between the interests of public health and those of profit-motivated industries, which influence consumer behavior and health via marketing, lobbying, and control of supply chains.²⁶

The challenge of equitably meeting nutritional needs without expanding agricultural land or increasing use of other natural resources intensifies with a steadily growing population. Although it is not possible for a national or global population to be supported with zero environmental footprint, improvements in agricultural practices and reduction of waste throughout food supply chains, including at the consumer level, can help to minimize the negative impacts of the food system, while promoting human nutrition and positive health outcomes.

Producing a safe and healthy food and water supply that is accessible and affordable to all people without depletion of essential inputs, such as soil and water, or widespread exploitation of the labor force is also fundamental to meeting the United Nations Sustainable Development Goals.²⁷ This challenge, which will only be amplified by the demands of a growing global population and shifting dietary

patterns,²⁸ has positioned a "sustainable food system" at the forefront of institutional and governmental policies and is central to the mission of many professional organizations involved with public health and the food system.²⁹⁻³²

RDNs play a unique and pivotal role in promoting sustainable food systems. RDNs in all areas of nutrition and dietetics are increasingly being called upon to address issues of sustainability and resilience in their daily practice.³³ For example, RDNs in foodservice settings, such as school nutrition, hospital foodservice,³⁴ workplace foodservice, and restaurants, are increasingly considering sustainability within food procurement, menu planning, and operational decisions³⁵; clinical practitioners can incorporate food security screening and connect underserved individuals to institutional and community resources³⁶; practitioners in corporate settings can influence decisions to increase the sustainability of packaging materials or ingredient sourcing; and RDNs in all settings can champion efforts to reduce unnecessary food waste and divert unavoidable food scraps from landfills. A growing number of didactic and internship programs are incorporating sustainable food systems knowledge and skills into their training,^{37,38} and career opportunities increasingly call for RDNs to leverage their core skills in new ways, such as developing policy solutions that reflect community needs, or overseeing sustainability initiatives in foodservice, agribusiness, or food technology settings.

Sustainability is often defined as the ability of a system to be maintained over the long term and meet the needs of the present without jeopardizing the ability to meet those of future generations.³⁹ A sustainable food system is one that not only meets the needs of all individuals and communities in the present moment, but also has the capacity to adjust over time to accommodate future generations. Meeting the needs of all individuals and communities requires an emphasis on those historically marginalized and disproportionately impacted by systemic racism, sexism, classism, and other intersecting forms of oppression. These populations, which could include women, people of color, individuals living in low socioeconomic

It is worth noting that in addition to *sustaining* food systems resources and capacity over the long-term, it is also important to renew and regenerate resources. Although we use the phrasing of sustainability throughout this SOPP for brevity and consistency with previous efforts, we acknowledge that the conversation is ever-changing and we do not exclude complementary and emerging frameworks, such as regenerative or circular food systems.⁴⁰⁻⁴²

communities, communities exposed to environmental contaminants from food production practices, or communities displaced by climate change, are among those most vulnerable to the consequences of food insecurity and poor nutrition. A sustainable food system also fulfills conditions of social and economic sustainability, including fair compensation and working conditions for all people involved in growing, producing, distributing, selling, and serving foods and beverages; equitable economic opportunities and outcomes for all communities; and access to foods that are nutritious, affordable, and culturally appropriate. As frontline workers throughout the food system, RDNs frequently encounter the nutritional manifestations of unsustainable practices within the food system. These may present as disparities in diet-related disease, healthy food access, health care, and other community resources and services in client populations. This SOPP demonstrates a variety of ways RDNs can leverage their knowledge and skills to also address underlying drivers of sustainability within the food system, whether that is through their research; advocacy; or work with community coalitions, institutions, or corporations.

In broad terms, *resilience* refers to the ability of a system and the people within it to withstand or adapt to disturbances over time.^{43,44} A resilient food system continues to meet the food and nutrition needs of a population despite disturbances such as climate change, natural disasters, pandemics, political or economic crises, or rapid urbanization.⁴⁵ Similarly to sustainability, the issue of resilience applies to all areas of nutrition and dietetics practice, can be incorporated at both the program and systems levels, and is broader than any one specific practice setting or individual intervention. RDNs

should consider that individuals and communities may differ in their ability to withstand and recover from disruptive events—for example, a community that was underserved before a natural disaster or political crisis may be more affected and take longer to recover—and should therefore promote equity as a central component of resilience. RDNs can support resilience in the food system by elevating the needs of vulnerable populations they work with and initiating collaborative efforts to address underlying structural issues, not only connecting food-insecure patients with resources, but also advocating for the importance of healthy food environments and fair wages. On a global scale, RDNs can lend their expertise to collaborative efforts for climate change mitigation and adaptation; for instance, ensuring that interventions to promote climate-resilient agricultural practices consider issues such as nutritional quality, food choice, food safety, gender equity, and cultural appropriateness.

In the context of sustainable, resilient, and healthy food and water systems, the term *healthy* broadly refers to the ability of a food and water system to equitably facilitate well-being and disease prevention for all individuals.⁴⁶ A healthy food and water system is one that makes nutrient-rich foods accessible and affordable for all individuals, including low-income and marginalized populations; adopts practices and incorporates adequate infrastructure to minimize contamination of resources, such as air and water; and ensures that people have access to resources needed for food storage (eg, refrigeration), preparation, feeding, and caregiving practices that support child and family health. RDNs are recognized leaders in promoting human health. Given the interconnectedness between sustainability, resilience, and health, RDNs are essential collaborators in interprofessional efforts to advance sustainable food systems.

A sustainable, resilient, and healthy food system (sustainable food system, hereafter) is one in which all individuals have equitable access to a safe and secure supply of food and water that supports optimal health, both now and in the future. Sustainable food systems are at the intersection of the following 4 domains: Nutrition and Health; Social, Cultural, and Ethical

Capital; Environmental Stewardship; and Economic Vitality. Principles for each domain are shown in the framework in [Figure 1](#). The sustainable, resilient, and healthy food and water systems framework illustrates a few important concepts: sustainability is multidimensional, and the 4 domains of sustainable food systems are interconnected and overlapping. RDNs can use the framework to convey the multitude of factors that should be considered when implementing measures to promote sustainable food systems, and to identify potential co-benefits and trade-offs.

RDNs have the opportunity and the responsibility to integrate sustainable food systems principles into their respective practice areas in order to strengthen food and water systems for all individuals, now and for the future. These efforts may include interactions with individual clients, or they may take the form of policy, system, and environmental changes⁴⁷ that address the quantity, quality, safety, and accessibility of food and water supplies and the interrelated co-benefits and impacts of environmental, economic, social, and health systems. The standards and indicators that appear in [Figure 2](#) (available at www.jandonline.org) span all levels of practice and settings.

RDNs in sustainable food systems frequently work with issues that exemplify complex systems. A systems thinking approach recognizes the complex interrelationships between multiple components within a larger system. Understanding nonlinear processes, recognizing feedback loops, and identifying possible trade-offs between interrelated parts of a system are all distinguishing components of this approach.⁵³ Systems thinking benefits from an interprofessional approach, and RDNs bring a unique skill set that spans nutrition, health, and customer-focused experience to interprofessional teams. An RDN applying a systems approach to improving food and water systems would identify the root causes of a problem by utilizing information from and collaborating with colleagues in diverse fields, including but not limited to agriculture, economics, environmental health, supply chain management, urban planning, and public policy. The RDN would also consider

In a **sustainable, resilient, and healthy food and water system**, all individuals have equitable access to a safe and secure supply of food and water that supports optimal health, both now and in the future. Sustainability is multi-dimensional, and the four domains of sustainable food systems (shown below) are interconnected and overlapping. RDNs can use this framework to convey the multitude of factors that should be considered when implementing measures to promote sustainable food systems, and to identify potential co-benefits and tradeoffs.



Figure 1. Sustainable, resilient, and healthy food and water systems framework. (Adapted from Tagtow and colleagues.¹)

potential implications (eg, externalities) of any one approach to resolving the problem, as well as alternative approaches, before implementing a change in policy or the environment.

For example, when working with a local food policy council to increase access to healthy foods, RDNs would first consider underlying systemic factors acting as barriers to healthy food access,

including current and historical public policies that may be perpetuating social and economic inequalities. In developing solutions to the problem, RDNs would also consider the ways in which

programs and policies can improve nutrition and health, while generating equitable benefits for the local community, economy, and environment, and weighing potential benefits against undesired consequences or unintended outcomes. In this case, the RDN might consider working with the food policy council and community leaders to expand a federal nutrition program that allows low-income shoppers to purchase additional fruits and vegetables from local producers at the farmers market. Due to the complexity and breadth of sustainable food systems issues, working in interprofessional teams is essential to effectively address the root causes of pressing public health challenges and generate optimal benefit across multiple domains.

ACADEMY QUALITY AND PRACTICE RESOURCES

Scope of practice in nutrition and dietetics is composed of statutory and individual components, includes the codes of ethics (eg, Academy/CDR, other national organizations, and/or employers code of ethics), and encompasses the range of roles, activities, practice guidelines, and regulations within which RDNs perform. For credentialed practitioners, scope of practice is typically established within the practice act and interpreted and controlled by the agency or board that regulates the practice of the profession in a given state.⁴ An RDN's statutory scope of practice can delineate the services an RDN is authorized to perform in a state where a practice act or certification exists (for more information, see www.eatrightpro.org/advocacy/licensure/licensure-map).

The RDN's individual scope of practice is determined by education, training, credentialing, experience, and demonstrating and documenting competence to practice. Individual scope of practice in nutrition and dietetics has flexible boundaries to capture the breadth of the individual's professional practice. Professional advancement beyond the core education and supervised practice to qualify for the RDN credential provides RDNs practice opportunities, such as expanded roles within an organization based on training and certifications, if required. The Scope of Practice Decision Algorithm (www.eatrightpro.org/

scope) guides an RDN through a series of questions to determine whether a particular activity is within their scope of practice.⁵⁴ The algorithm is designed to assist an RDN to critically evaluate their personal knowledge, skill, experience, judgment, and demonstrated competence using criteria resources.

The Academy's Revised 2017 SOP in Nutrition Care and SOPP for RDNs² reflect the minimum competent level of nutrition and dietetics practice and professional performance. The core standards serve as blueprints for the development of focus-area SOP and/or SOPP for RDNs in competent, proficient, and expert levels of practice. While this document addresses the SOPP only, each RDN needs to be aware of the minimum competent level of practice for the core SOP in Nutrition Care and relate its quality indicators within sustainable food systems activities by drawing upon one's own practice experience and knowledge. The SOP in Nutrition Care is composed of 4 standards consistent with the Nutrition Care Process and clinical workflow elements as applied to the care of patients/clients/populations in all settings.⁵⁵ The SOPP consists of standards representing 6 domains of professional performance: Quality in Practice, Competence and Accountability, Provision of Services, Application of Research, Communication and Application of Knowledge, and Utilization and Management of Resources. The SOP and SOPP for RDNs are designed to promote the provision of safe, effective, efficient, and quality food and nutrition care and services; facilitate evidence-based practice; and serve as a professional evaluation resource.

These focus-area standards for RDNs in sustainable food systems provide a guide for self-evaluation and expanding practice, a means of identifying areas for professional development, and a tool for demonstrating competence in delivering sustainable food systems nutrition and dietetic services. They are used by RDNs to assess their current level of practice and to determine the education and training required to maintain currency in their focus area and advancement to a higher level of practice. In addition, the standards can be used to assist RDNs in transitioning their knowledge and skills to a new focus area of practice. Like the Academy's core SOP in

Nutrition Care and SOPP for RDNs,² the indicators (ie, measurable action statements that illustrate how each standard can be applied in practice) (see Figure 2, available at www.jandonline.org) for the SOPP for RDNs in Sustainable Food Systems were revised with input and consensus of content experts representing diverse practice and geographic perspectives. The SOPP for RDNs in Sustainable Food Systems were reviewed and approved by the Executive Committee of the HEN DPG and the Academy Quality Management Committee.

WHY WERE THE STANDARDS REVISED?

It is critical that RDNs working in sustainable food systems reflect current practice regarding the most recent research, evidence-based practices, and related laws and regulations in health care and other applicable practice segments. Changes in the practice environment for RDNs and nutrition and dietetics technicians, registered, can impact care and services provided by RDNs. Examples of significant changes are:

- The Scope of Practice for the RDN⁴ and the Scope of Practice for the Nutrition and Dietetics Technician, Registered⁵⁶ were revised and published in the Academy's *Journal* in January 2018 and February 2018, respectively. The RDN Scope of Practice reflects changes impacting practice, such as the Centers for Medicare and Medicaid Services (CMS) updates to regulations; national efforts to address malnutrition; and sections on coaching, global health, and telehealth, among other updates. The Nutrition and Dietetics Technician, Registered Scope of Practice also includes revisions such as updated practice areas and a new individual scope of practice figure.
- The CMS, Department of Health and Human Services Hospital⁴⁹ and Critical Access Hospital⁵⁰ Conditions of Participation now allow a hospital and its medical staff the option of including an RDN or other clinically qualified nutrition professional within the category of "non-physician

practitioner” eligible for ordering privileges for therapeutic diets and nutrition-related services if consistent with state law and health care regulations.⁵⁷ For more information, review the Academy’s practice tips that outline the regulations and implementation steps at www.eatrightpro.org/dietorders. For assistance, refer questions to the Academy’s State Affiliate organization.

- The Long-Term Care Final Rule published October 4, 2016 in the *Federal Register*, now “allows the attending physician to delegate to a qualified dietitian or other clinically qualified nutrition professional the task of prescribing a resident’s diet, including a therapeutic diet, to the extent allowed by state law” and permitted by the facility’s policies.⁵¹ The CMS State Operations Manual, Appendix PP-Guidance for Surveyors for Long-Term Care Facilities contains the revised regulatory language.⁵² CMS periodically revises the State Operations Manual Conditions of Participation; obtain the current information at <https://www.cms.gov/files/document/appendices-table-content.pdf>.
- The Dietary Guidelines Advisory Committee recommended that sustainability be considered as part of the 2015–2020 Dietary Guidelines for Americans. Specifically, in reviewing the scientific evidence, the Dietary Guidelines Advisory Committee indicated that not only is a diet that considers sustainability more healthful, it is also one that is better for the environment. Although the Dietary Guidelines Advisory Committee’s sustainability recommendations⁵⁸ were not included in the final Dietary Guidelines for Americans,⁵⁹ the discussion around the topic suggests a need for credentialed nutrition and dietetics practitioners to be knowledgeable and skilled in sustainable food systems.
- The Council on Future Practice 2017 Visioning Report, a report

that discusses the future needs of the nutrition and dietetics profession, indicated that sustainable food systems is 1 of 5 high-priority areas for the future of the profession.⁶⁰

- The Academy’s Strategic Plan includes a focus area on “Food and Nutrition Safety and Security.” It has multiple impact goals, such as “increase equitable access to and utilization of safe and nutritious food and water; advance sustainable nutrition and resilient food systems; leverage innovations in the reduction of food waste and loss; and champion legislation and regulations that increase food and nutrition security throughout the lifecycle” (www.eatrightpro.org/leadership/governance/board-of-directors/strategic-plan).

Other significant changes impacting nutrition and dietetics practice are highlighted in both the Revised 2017 SOP in Nutrition Care and SOPP for RDNs² and the Revised 2017 SOP in Nutrition Care and SOPP for NDTRs.⁶¹

THREE LEVELS OF PRACTICE

The Dreyfus model⁶² identifies levels of proficiency (ie, novice, advanced beginner, competent, proficient, and expert) (refer to [Figure 3](#)) during the acquisition and development of knowledge and skills. The first 2 levels are components of the required didactic education (novice) and supervised practice experience (advanced beginner) that precede credentialing for nutrition and dietetics practitioners. Upon successfully attaining the RDN credential, a practitioner enters professional practice at the competent level and manages their professional development to achieve individual professional goals. This model is helpful in understanding the levels of practice described in the SOPP for RDNs in Sustainable Food Systems. In Academy focus areas, the 3 levels of practice are represented as competent, proficient, and expert.

Competent Practitioner

In nutrition and dietetics, a competent practitioner is an RDN who is either

With safety and evidence-based practice⁶³ as guiding factors when working with customers/populations, the RDN identifies the level of evidence, clearly states research limitations, provides safety information from reputable sources, and describes the risk of the intervention(s), when applicable.

The RDN is responsible for searching literature and assessing the level of evidence to select the best available evidence to inform recommendations. RDNs must evaluate and understand the best available evidence in order to converse authoritatively with the inter-professional team and adequately involve the customer/population in shared decision making.

just starting practice after having obtained RDN registration by CDR or an experienced RDN recently transitioning their practice to a new focus area of nutrition and dietetics. A focus area of nutrition and dietetics practice is a defined area of practice that requires focused knowledge, skills, and experience that applies to all levels of practice.⁶³ A competent practitioner who has achieved credentialing as an RDN and is starting in professional employment consistently provides safe and reliable services by employing appropriate knowledge, skills, behavior, and values in accordance with accepted standards of the profession; acquires additional on-the-job skills; and engages in tailored continuing education to further enhance knowledge, skills, and judgment obtained in formal education.⁶³ A general practice RDN can include responsibilities across several areas of practice, including but not limited to community, clinical, consultation and business, research, education, and food and nutrition management.

As shown in [Figure 1](#), a framework for this area of practice, sustainable food systems are at the intersection of the following 4 domains: Nutrition and Health; Environmental Stewardship; Economic Vitality; and Social, Cultural, and Ethical Capital. Competent practitioners should be familiar with the basic terminology, issues, and priorities of these domains, and have an understanding of the application of the 4 domains ([Figure 1](#)) to research, policy, and practice. For more information on

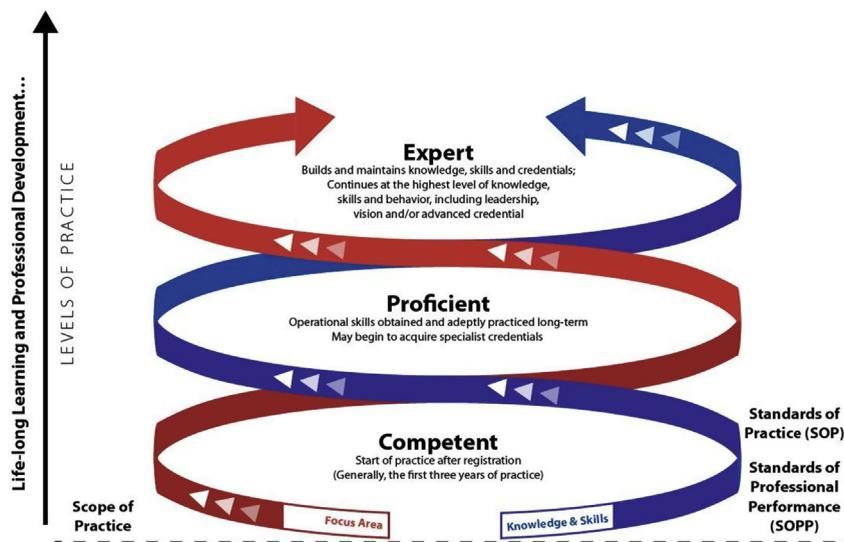
Standards of Professional Performance (SOPP) for RDNs in Sustainable, Resilient, and Healthy Food and Water Systems (Sustainable Food Systems) are authoritative statements that describe behavior in the professional role, including activities related to Quality in Practice; Competence and Accountability; Provision of Services; Application of Research; Communication and Application of Knowledge; and Utilization and Management of Resources (6 separate standards).

The SOPP, along with the Standards of Practice (SOP) in Nutrition Care, applicable to practitioners who provide direct patient/client nutrition care services, are complementary standards and serve as evaluation resources. All indicators may not be applicable to all RDNs' practice or to all practice settings and situations. RDNs operate within the directives of applicable federal and state laws and regulations, as well as policies and procedures established by the organization in which they are employed. To determine whether an activity is within the scope of practice of the RDN, the practitioner compares their knowledge, skill, experience, judgment, and demonstrated competence with the criteria necessary to perform the activity safely, ethically, legally, and appropriately. The Academy's Scope of Practice Decision Algorithm is specifically designed to assist practitioners with this process.

The term **customer** is used in the SOPP as a universal term. Customer could also mean client/patient, client/patient/customer, participant, consumer, or any individual, group, or organization to which the RDN provides sustainable food systems services. These services are provided to populations, communities, and individuals of all ages across diverse settings. The SOPP apply to all practice areas, including clinical settings. In addition, it is recognized that professional colleagues, employees, organization leaders, public and private sector organizations, agencies, community members, and other stakeholders play critical roles in developing and maintaining sustainable food systems, and are important members of the interprofessional team. The term **appropriate** is used in the standards to mean: Selecting from a range of best practices or evidence-based possibilities, one or more of which would give an acceptable result in the circumstances.

Each standard is equal in relevance and importance and includes a definition, a rationale statement, indicators, and examples of desired outcomes. A standard is a collection of specific outcome-focused statements against which a practitioner's performance can be assessed. The rationale statement describes the intent of the standard and defines its purpose and importance in greater detail. Indicators are measurable action statements that illustrate how each specific standard can be applied in practice. Indicators serve to identify the level of performance of competent practitioners and to encourage and recognize professional growth.

Standard definitions, rationale statements, core indicators, and examples of outcomes found in the Academy of Nutrition and Dietetics: Revised 2017 SOP in Nutrition Care and SOPP for RDNs have been adapted to reflect 3 levels of practice (competent, proficient, and expert) for RDNs in sustainable food systems (see image below). In addition, the core indicators have been expanded to reflect the unique competence expectations for the RDN providing services related to sustainable food systems.



Adapted from the *Dietetics Career Development Guide*. For more information, please visit www.eatrightPRO.org/futurepractice

Figure 3. Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy Food and Water Systems.

Resource (year of publication)	Reference or URL	Description
Resources from the Academy of Nutrition and Dietetics (Academy)		
Academy Hunger and Environmental Nutrition Dietetic Practice Group (HEN DPG)	https://hendpg.org/	The HEN DPG offers resources for registered dietitian nutritionists (RDNs) in sustainable food systems, in addition to other areas within hunger and environmental nutrition, such as an electronic mailing list, continuing professional education unit opportunities, newsletter, free access to HEN members to the <i>Journal of Hunger and Environmental Nutrition</i> and a Sustainable, Resilient, and Healthy Food & Water Systems Glossary.
Cultivating Sustainable, Resilient, Healthy Food and Water Systems: A Nutrition-Focused Framework for Action (2020)	Spiker and colleagues ⁶⁴	This document outlines ways that RDNs can cultivate sustainable food and water systems through 5 “entry points:” shaping and delivering dietary guidance; improving food and nutrition security and water security; aligning food production and nutrition; optimizing supply chains and food environments; and reducing waste of food, water, and other resources.
Food Security and Sustainability	www.eatrightpro.org/practice/practice-resources/food-security-and-sustainability	This Academy website highlights efforts and resources related to food security and sustainability with links to other organizations whose work relates to this topic, such as Global Alliance for Improved Nutrition, International Food Policy Research Institute, and ReFED.
Prioritizing Food Security Solutions Toolkit (2019)	https://eatrightfoundation.org/why-it-matters/public-education/food-security-solutions/	This toolkit, available from the Academy Foundation, is a 4-step food security solutions prioritization process that “identifies the best solutions to improve food security in the community, given the resources available.”
Visioning Report 2017: A Preferred Path Forward for the Nutrition and Dietetics Profession (2017)	Kicklighter and colleagues ⁶⁰	A visioning report from the Academy’s Council on Future Practice that identifies “food and nutrition systems and sustainability” as 1 of 5 key priority areas to help meet the future needs of the profession and society.
Resources from Other Professional Associations		
American Public Health Association: Towards a Healthy and Sustainable Food System (2007)	www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/29/12/34/toward-a-healthy-sustainable-food-system	A policy statement from the American Public Health Association articulating how food systems affect public health.
British Dietetics Association: One Blue Dot: Environmentally Sustainable Diet Toolkit (2019)	www.bda.uk.com/professional/resources/environmentally_sustainable_diet_toolkit_-_one_blue_dot	A toolkit from the British Dietetics Association with information, graphics, tools, and links to help dietitians increase their understanding of environmentally sustainable diets and discuss sustainable diets with patients or clients.
<i>(continued on next page)</i>		

Figure 4. Example Resources for Sustainable, Resilient, and Healthy Food and Water Systems (not all inclusive), listed in alphabetical order within each category. Note: the resources included in this table do not necessarily represent the views of the Academy.

Resource (year of publication)	Reference or URL	Description
Position of the Society for Nutrition Education and Behavior: The Importance of Including Environmental Sustainability in Dietary Guidance (2019)	Rose and colleagues ⁶⁵	A position paper in which the Society for Nutrition Education and Behavior states that “environmental sustainability should be inherent in dietary guidance, whether working with individuals or groups about their dietary choices or in setting national dietary guidance.”
Resources on Sustainable Food Procurement		
Centers for Disease Control and Prevention: Food Service Guidelines for Federal Facilities (2017)	www.cdc.gov/obesity/downloads/guidelines_for_federal_concessions_and_vending_operations.pdf	These guidelines have been developed to ensure that healthier foods and beverages are available and encouraged at federal facilities; environmentally responsible practices are conducted in federal foodservice venues; communities are economically supported through local food sourcing; and food safety practices are followed to minimize the risk of foodborne illnesses.
Farm to Institution New England: Food Service Toolkit (2016)	www.farmtoinstitution.org/food-service-toolkit	This toolkit, designed by a collaborative of New England states and primarily intended for use by foodservice managers, institutional sustainability directors, or supply chain facilitators, highlights the opportunities and barriers to utilizing regional food within institutional food procurement systems.
Health Care Without Harm: Resources on Sustainable Procurement in Hospitals and Sustainable Food	https://noharm-global.org/	Rationale and resources for sustainable procurement for health care settings, including an outline of the steps to enacting the Sustainable Health in Procurement Project—a joint initiative between the World Health Organization and Healthcare Without Harm. Another resource available in the European section is the white paper “Fresh, Healthy, and Sustainable Food: Best Practices in European Healthcare.”
Johns Hopkins Center for a Livable Future: Instituting Change: An Overview of Institutional Food Procurement and Recommendations for Improvement (2016)	https://clf.jhsph.edu/sites/default/files/2019-01/Instituting-change.pdf	A report that reviews literature and key information and resources regarding institutional foodservice procurement systems, including potential benefits of shifting large-scale purchases toward local or sustainably grown food and existing barriers to adopting values-based procurement policies.
Union of Concerned Scientists: Purchasing Power: How Institutional “Good Food” Procurement Policies Can Shape a Food System That’s Better for People and Our Planet (2017)	www.ucsusa.org/sites/default/files/attach/2017/11/purchasing-power-report-ucs-2017.pdf	A report that describes a comprehensive values-based institutional purchasing framework called the “Good Food Purchasing Program.” The procurement policy prioritizes 5 values in food purchasing: animal welfare, environmental sustainability, local economies, nutrition, and a valued workforce.
<i>(continued on next page)</i>		

Figure 4. (continued) Example Resources for Sustainable, Resilient, and Healthy Food and Water Systems (not all inclusive), listed in alphabetical order within each category. Note: the resources included in this table do not necessarily represent the views of the Academy.

Resource (year of publication)	Reference or URL	Description
Resources on the Environmental Implications of Dietary Patterns		
Food and Agricultural Organization of the United Nations (FAO): Food-Based Dietary Guidelines: Dietary Guidelines and Sustainability	www.fao.org/nutrition/education/food-dietary-guidelines/background/sustainable-dietary-guidelines/en/	A compilation of dietary guidelines from across the world that address sustainability, developed by the FAO.
FAO: Plates, Pyramids, Planet (2016)	www.fao.org/documents/card/en/c/d8dfeaf1-f859-4191-954f-e8e1388cd0b7/	An overview of developments in national healthy and sustainable dietary guidelines across the globe, developed by the FAO in 2016.
FAO: Reports from the High Level Panel of Experts on Food Security and Nutrition	www.fao.org/cfs/cfs-hlpe/reports/en/	A series of reports and position papers (1-2 per year) from FAO on global issues related to food security and food and water systems, including topics such as “Food Losses and Waste in the Context of Sustainable Food Systems (2014),” “Nutrition and Food Systems (2017),” and “Agroecological Approaches and Other Innovations for Sustainable Agriculture and Food Systems that Enhance Food Security and Nutrition (2019).”
Scientific Report of the 2015 Dietary Guidelines Advisory Committee (Chapter 5) (2017)	https://ods.od.nih.gov/pubs/2015_dgac_scientific_report.pdf	Chapter 5, “Food Sustainability and Safety,” addresses key research questions related to food safety and sustainability, including the relationship between population-level dietary patterns and long-term food sustainability.
Sustainable Development Goals	https://sustainabledevelopment.un.org/sdgs	All 17 Sustainable Development Goals are directly or indirectly related to nutrition. This website has multiple resources related to the Sustainable Development Goals, including conferences, advisory bodies, newsletters, and educational resources available through the “SDG Academy.”
Educational and Curricular Resources		
Academy of Nutrition and Dietetics Foundation: Food Insecurity and Food Banking Curriculum for Dietetic Interns and Students (2015)	http://hungerandhealth.feedingamerica.org/wp-content/uploads/legacy/mp/files/tool_and_resources/files/preceptors-guide-food-insecurity-food-banking-supervised-practice-concentration-july-2015.pdf	This curriculum, developed by the Nutrition Solutions Working Group convened by the Academy Foundation and Feeding America as part of the Academy Foundation’s Future of Food initiative, includes 12 activities to be completed within 120 practice hours. The activities are designed to help nutrition and dietetics interns develop the knowledge and skills necessary for an entry-level RDN position in a food bank, and provide the nutrition and dietetics interns and students with experiences in nutrition education, food bank management, and food systems.

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Figure 4. *(continued)* Example Resources for Sustainable, Resilient, and Healthy Food and Water Systems (not all inclusive), listed in alphabetical order within each category. Note: the resources included in this table do not necessarily represent the views of the Academy.

Resource (year of publication)	Reference or URL	Description
Academy of Nutrition and Dietetics Foundation: Sustainable, Resilient, Healthy Food and Water Systems Curriculum for Dietetic Interns and Students (2018)	https://eatrightfoundation.org/why-it-matters/public-education/future-of-food/sfs/	This curriculum, developed by subject matter experts convened by the Academy's Nutrition and Dietetic Educators and Preceptors unit as part of the Academy Foundation's Future of Food initiative, includes 12 activities that encompass the 7 sectors of the food system, totaling 120 supervised practice hours. The curriculum is designed to provide nutrition and dietetics interns and students with strong foundational knowledge in the nutritional, social, environmental, and economic dimensions of sustainable food systems. An article discussing the curriculum is also available in the <i>Journal of the Academy of Nutrition and Dietetics</i> . ³⁷
Johns Hopkins Center for a Livable Future: FoodSpan curriculum	www.foodspanlearning.org/	A curriculum (4 units, 17 lessons total) for high school students on critical food system issues, including an action project.
Planetary Health Alliance: Planetary Health Education	https://planetaryhealthalliance.org/education	A 14-unit resource repository for primary, secondary, and university students, and health professionals on planetary health topics, including changing food systems, climate change, water scarcity, biodiversity, and nutrition.
Other Tools		
Food Chain Workers Alliance and Solidarity Research Cooperative: No Piece of the Pie: Food Chain Workers in 2016 (2016)	http://foodchainworkers.org/wp-content/uploads/2011/05/FCWA_NoPieceOfThePie_P.pdf	A report that addresses the challenges faced by food system workers in the 5 key sectors of the food chain (production, processing, distribution, retail, and service), including poor working conditions, below average wages, and discriminatory and abusive practices.
HEAL (Health Environment Agriculture and Labor): Platform for Real Food	https://healfoodalliance.org/platformforrealfood/	This 10-point platform serves as a call to action to transform the food system to promote human, economic, and planetary health.
Michigan State University, Center for Regional Food Systems: An Annotated Bibliography on Structural Racism Present in the U.S. Food System, Sixth Edition (2019)	www.canr.msu.edu/resources/structural_racism_in_us_food_system	An annotated bibliography that provides current research and outreach on structural racism in the US food system for food system practitioners, researchers, and educators.
Michigan State University, Center for Regional Food Systems: Measuring Racial Equity in the Food Systems: Established and Suggested Metrics (2019)	www.canr.msu.edu/foodsystems/uploads/files/measuring-racial-equity-in-the-food-system.pdf	This report identifies metrics related to racial equity in the food system that are either in use by organizations currently or have been recommended for use. The report provides metrics related to food access, food and farm business, food chain labor, and food movement.

Figure 4. (continued) Example Resources for Sustainable, Resilient, and Healthy Food and Water Systems (not all inclusive), listed in alphabetical order within each category. Note: the resources included in this table do not necessarily represent the views of the Academy.

how to begin incorporating principles of sustainable food systems into dietetics practice, this document is a tool (including Figure 4 with resources), as well as the HEN DPG. The HEN DPG website (www.hendpg.org) has webinars, newsletters, networking opportunities, and talking points about major issues related to nutrition, sustainability, and food and water systems. In addition to these resources, the HEN DPG also allows its members free access to the *Journal of Hunger and Environmental Nutrition*, which is published in cooperation with HEN DPG. Other DPGs, such as the Public Health and Community Nutrition DPG and the Agriculture subgroup of the Food and Culinary Professionals DPG, may also offer relevant resources for a variety of practice settings.

Proficient Practitioner

A proficient practitioner is an RDN who is generally 3 or more years beyond credentialing and entry into the profession and who consistently provides safe and reliable service; has obtained operational job performance skills; and is successful in the RDN's chosen focus area of practice. The proficient practitioner demonstrates additional knowledge, skills, judgment, and experience in a focus area of nutrition and dietetics practice.⁶³

Proficient practitioners may seek opportunities for specialized training through advanced degrees, certificates of training, and specialist credentials (if available). Achieving progress in sustainable food systems requires collaboration from many disciplines and sectors. Proficient practitioners can promote linkages in the food system by deepening their understanding of other fields (such as agriculture, policy, and behavior change) so that they can improve their ability to communicate and collaborate with other food systems stakeholders.

Expert Practitioner

An expert practitioner is an RDN who is recognized within the profession and has mastered the highest degree of skill in, and knowledge of, nutrition and dietetics. Expert-level achievement is acquired through extensive practice and incorporating critical feedback from others. The individual at

this level continues to strive for additional knowledge and experience. An expert has the ability to quickly identify what is happening and how to approach the situation. Experts easily use nutrition and dietetics skills to become successful through demonstrating quality practice and leadership, and to consider new opportunities that build upon nutrition and dietetics.⁶³ An expert practitioner may have advanced degree(s), extensive experience, or a leadership position (or a combination of any of these). Generally, the practice is more complex and the practitioner has a high degree of professional autonomy and responsibility.

Sustainable food systems expert practitioners help the profession adapt to evolving food systems challenges. Expert practitioners can identify new priority areas where RDNs can leverage their skills in promoting the principles of sustainable food systems and create new pathways for practice, policy change, education and training, and research.⁶⁴ Given that the evidence base on sustainable food systems is rapidly expanding and involves multiple scientific disciplines, expert practitioners can promote dialogue and collaboration with other disciplines in efforts to conduct and translate research that informs practice. Expert practitioners can also ensure the visibility of the profession in collaborative spaces, such as policy advisory councils, coalitions, and conferences.

These Standards, along with the Academy/CDR Code of Ethics,³ answer the following questions: Why is an RDN uniquely qualified to provide sustainable food systems nutrition and dietetics services? What knowledge, skills, and competencies does an RDN need to demonstrate for the provision of safe, effective, and quality sustainable food and water systems at the competent, proficient, and expert levels?

ACADEMY REVISED 2020 SOPP FOR RDNs (COMPETENT, PROFICIENT, AND EXPERT) IN SUSTAINABLE FOOD SYSTEMS

An RDN can use the Academy Revised 2020 SOPP for RDNs (Competent, Proficient, and Expert) in Sustainable Food Systems (see Figure 2, available

at www.jandonline.org, and Figure 3) to:

- identify the competencies needed to provide sustainable food systems practice;
- self-evaluate whether they have the appropriate knowledge, skills, and judgment to provide safe, adequate, effective, and quality sustainable food systems practice for their level of practice;
- identify the areas in which additional knowledge, skills, and experience are needed to practice at the competent, proficient, or expert level of sustainable food systems practice;
- provide a foundation for public and professional accountability in sustainable food systems practice;
- support efforts for strategic planning, performance improvement, and outcomes reporting, and assist management in the planning and communicating of sustainable food systems practices and resources;
- enhance professional identity and skill in communicating the nature of sustainable food systems practice;
- guide the development of sustainable food systems education and continuing education programs, job descriptions, practice guidelines, protocols, food systems models, competence evaluation tools, and career pathways; and
- assist educators and preceptors in teaching students and interns the knowledge, skills, and competencies needed to work in sustainable food systems, and the understanding of the full scope of this focus area of practice.

APPLICATION TO PRACTICE

All RDNs, even those with significant experience in other practice areas, must begin at the competent level when practicing in a new setting or new focus area of practice. At the competent level, an RDN in sustainable food systems is learning the principles that underpin this focus area and is developing knowledge, skills, judgment, and gaining experience for safe

and effective sustainable food systems practice. This RDN, who may be new to the profession or may be an experienced RDN, has a breadth of knowledge in nutrition and dietetics and may have proficient or expert knowledge/practice in another focus area. However, the RDN new to the focus area of sustainable food systems must accept the challenge of becoming familiar with the body of knowledge, practice guidelines, and available resources to support and ensure quality sustainable food systems–related nutrition and dietetics practice. Competent practitioners across all areas of practice incorporate critical and systems thinking and can integrate the principles of sustainable food systems into their work. For example, practitioners may contribute to designing menus and meal plans consistent with the principles of sustainable food systems, drawing from evidence-based literature. Competent practitioners may advocate for institutional policies or procedures for purchasing, distribution, and waste management that conserve natural resources and support local communities.

At the proficient level, an RDN has developed a more in-depth understanding of sustainable food systems practice. RDNs at this level are more skilled at adapting and applying evidence-based guidelines and best practices, incorporating critical and systems thinking into aspects of their work to draw connections between the 4 domains of sustainable food systems (Figure 1). This RDN is also able to use critical thinking skills to modify sustainable food systems practice according to unique situations, for example, tailoring interventions to take into consideration geographic variation, environmental conditions, accessibility of food and water systems services, cultural and community preferences, and readiness for change by clients, including individuals, institutions, or policymakers. Collaborating with experts outside of the profession (eg, food producers, food justice advocates, and public health practitioners) may help the RDN build skills in interprofessional communication and collaboration.

At the expert level, the RDN thinks critically about sustainable food systems, demonstrates a more intuitive understanding of the practice area,

displays a range of highly developed technical skills, and formulates judgments acquired through a combination of education and experience. Practice at the expert level requires the application of composite nutrition and dietetics knowledge, with practitioners drawing not only on their practice experience, but also on the sustainable food systems experience of RDNs across various practice settings and interprofessional collaborators from fields such as agriculture, environmental health sciences, public health, public policy, climate change science, supply chain management, and economics. Expert RDNs, with their extensive experience and ability to see the connections between sustainable food systems and nutrition within a contextual whole, are fluid and flexible, and have considerable autonomy in practice. They lead the advancement of nutrition and dietetics practice in the area of sustainable food systems by guiding interprofessional teams; collaborating in scholarly research and advocacy efforts; developing and implementing new policies, programs, and services; and accepting leadership roles within organizations and networks.

One of the key traits of RDNs who have developed expert skills in sustainable food systems is the ability to apply a systems approach that engages interprofessional collaborators with diverse training and expertise in order to achieve goals and objectives. The nutrition-, health-, and customer-focused skill set of the RDN uniquely positions them to be a valuable member of any interprofessional team. While an RDN may not have the primary content expertise of their interprofessional collaborators, the expert-level RDN will be conversant in the broad terminology of relevant fields and will be equipped to consult a wide network of collaborators. This includes taking direction from community groups and local leaders, who should be viewed as experts in understanding how planned policies, programs, or services can affect target populations, including unintended consequences that may exacerbate existing inequities.

Indicators for the SOPP for RDNs in Sustainable Food Systems are measurable action statements that illustrate how each standard can be applied in practice (Figure 2, available at www.jandonline.org).

Within the SOPP for RDNs in Sustainable Food Systems, an “X” in the competent column indicates that an RDN who is providing services to customers is expected to complete this activity and/or seek assistance to learn how to perform at the level of the standard. A competent RDN in sustainable food systems could be an RDN starting practice after registration or an experienced RDN who has recently assumed responsibility for incorporating sustainable food systems principles into recommendations and into practice.

An “X” in the proficient column indicates that an RDN who performs at this level has a deeper understanding of sustainable food systems practice and has the ability to incorporate sustainable food systems principles into recommendations that meet the needs of patients/clients/customers in various situations.

An “X” in the expert column indicates that the RDN who performs at this level possesses a comprehensive understanding of sustainable food systems practice and a highly developed range of skills and judgments acquired through a combination of experience and education. The expert RDN builds and maintains the highest level of knowledge, skills, and behaviors, including leadership, vision, and credentials.

Standards and indicators presented in Figure 2 (available at www.jandonline.org) in boldface type originate from the Academy’s Revised 2017 SOP in Nutrition Care and SOPP for RDNs² and should apply to RDNs in all 3 levels. Additional indicators not in boldface type developed for this focus area are identified as applicable to all levels of practice. Where an “X” is placed in all 3 levels of practice, it is understood that all RDNs in sustainable food systems are accountable for practice within each of these indicators. However, the depth with which an RDN performs each activity will increase as the individual moves beyond the competent level. Several levels of practice are considered in this document; thus, taking a holistic view of the SOPP for RDNs in Sustainable Food Systems is warranted. It is the totality of individual practice that defines a practitioner’s level of practice and not any one indicator or standard.

RDNs should review the SOPP in Sustainable Food Systems at

Role	Examples of use of SOPP documents by RDNs in different practice roles ^a
Clinical practitioner (including acute care, ambulatory care, and long-term care)	A registered dietitian nutritionist (RDN) working in a clinical setting wants to find ways to promote sustainable food systems that also align with their patient/client care goals. The RDN uses the SOPP in Sustainable Food Systems to familiarize themselves with this focus area and resources, identify areas of interest, determine ways to integrate the concepts into client education, and develop a plan for their own professional development. The RDN designs, implements, and evaluates a plan to reduce plate waste and improve oral intake by giving more attention to preferences, and addressing portion sizes to align with energy needs, supporting the twin goals of nutrition and food waste reduction.
Communications, marketing, or corporate practitioner (eg, with a food company, food retailer, commodity group, or other business)	An RDN working with a food retailer recognizes an opportunity to leverage growing consumer interest in sustainability. The RDN uses the SOPP to assess and build their knowledge in this area so that they can identify evidence-based strategies to better align company policies and practices with sustainable food systems principles. The RDN also uses the SOPP to identify topic areas for which to develop public education materials that address both nutrition and sustainability.
Community nutrition/public health practitioner	An RDN working with clients of a nutrition assistance program is hearing from an increasing number of clients that they are unable to use their local water supply for food preparation due to contamination. The RDN uses the SOPP to identify areas for further education in order to most effectively advocate for policy changes to improve the safety of the local water supply.
Elected official/public service RDN/member of board, committee, or council	An RDN working at a state government agency is presented with a policy proposal that would improve community food security but could negatively impact local food producers or other stakeholders. The RDN uses the SOPP to identify other interprofessional collaborators to help with gathering stakeholder input and evaluating the policy proposal across dimensions of social, economic, and environmental sustainability and health.
Educator (eg, faculty, administrator, or preceptor in a nutrition and dietetics education program)	An RDN faculty member or preceptor reviews the SOPP to identify content areas for expanding lecture content and assigned readings for students. A dietetics program director works to strengthen the abilities of future RDNs to practice and promote knowledge of the principles of sustainable food systems so they can make dietary recommendations that not only support nutrition health but are also affordable, culturally appropriate, and steward natural resources. The program director uses the SOPP as a guide for incorporating relevant competencies into the curriculum and uses the Resource Figure (see Figure 4) as a starting point when identifying curricular resources.
Foodservice director	An RDN working as a foodservice director at a large urban hospital is observing a high amount of preventable food waste. The RDN confirms this by working with supervisors to collect and analyze data and develop a plan to reduce preventable food waste using a quality improvement process. The RDN uses the SOPP to identify resources to strengthen knowledge and to share with staff that would inform the improvement or creation of new procedures and training materials addressing food and other resource waste (eg, water, electricity, and paper).
Private practitioner/consultant	An RDN in private practice would like to focus their business on sustainable food systems-related nutrition consulting for companies, institutions, and organizations. Before accepting clients, the RDN uses the SOPP to create a benchmark of what it means to practice competently and provide quality nutrition and dietetics services in sustainable food systems. The sustainable food systems principles discussed in the SOPP guide the RDN in creating the mission and vision for their company, and Figure 2 (available at www.jandonline.org) helps the RDN to develop a career ladder and goals as a practitioner.

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Figure 5. Role Examples of Standards of Professional Performance (SOPP) for Registered Dietitian Nutritionists (RDNs) (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy Food and Water Systems (Sustainable Food Systems).

Role	Examples of use of SOPP documents by RDNs in different practice roles ^a
Researcher	An RDN working in a research setting is awarded a grant to evaluate the relationship between experiences of racial discrimination and participation in nutrition assistance programs. The RDN uses the SOPP and resources identified to chart a trajectory for their professional development as a researcher in sustainable food systems, including disclosing and managing conflicts of interests, convening a team of interprofessional collaborators that leverages expertise across the food system, and translating their research into evidence-based strategies that align with sustainable food systems principles.
^a For each role, the RDN updates the professional development plan to include applicable essential practice competencies for sustainable food systems practice.	

Figure 5. (continued) Role Examples of Standards of Professional Performance (SOPP) for Registered Dietitian Nutritionists (RDNs) (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy Food and Water Systems (Sustainable Food Systems).

determined intervals to evaluate their individual focus-area knowledge, skill, and competence. Consistent self-evaluation is important because it helps identify opportunities to improve and enhance practice and professional performance and set goals for professional development. This self-appraisal also enables sustainable food systems RDNs to better utilize these Standards as part of the *Professional Development Portfolio* recertification process,⁶⁶ which encourages CDR-credentialed nutrition and dietetics practitioners to incorporate self-reflection and learning needs assessment for development of a learning plan for improvement and commitment to lifelong learning. CDR's 5-year recertification cycle incorporates the use of essential practice competencies for determining professional development needs.⁶⁷ In the 3-step process, the credentialed practitioner accesses an online Goal Wizard (step 1), which uses a decision algorithm to identify essential practice competency goals and performance indicators relevant to the RDN's area(s) of practice (essential practice competencies and performance indicators replace the learning need codes of the previous process). The Activity Log (step 2) is used to log and document continuing professional education during the 5-year period. The Professional Development Evaluation (step 3) guides self-reflection and assessment of learning and how it is applied. The outcome is a completed evaluation of the effectiveness of the practitioner's learning plan and continuing professional education. The self-assessment information can then be used in developing the plan for the practitioner's next 5-year recertification

cycle. For more information, see <https://www.cdnet.org/competencies-for-practitioners>.

RDNs are encouraged to pursue additional knowledge, skills, and training, regardless of practice setting, to maintain currency and to expand individual scope of practice within the limitations of the legal scope of practice, as defined by state law. RDNs are expected to practice only at the level at which they are competent, and this will vary depending on education, training, and experience.⁶⁸ RDNs should collaborate with other RDNs in sustainable food systems as learning opportunities and to promote consistency in practice and performance and continuous quality improvement. See Figure 5 for examples of how RDNs in different roles, at different levels of practice, can use the SOPP in Sustainable Food Systems.

In some instances, components of the SOPP for RDNs in Sustainable Food Systems do not specifically differentiate between proficient-level and expert-level practice. In these areas, it remains the consensus of the content experts that the distinctions are subtle, captured in the knowledge, experience, and intuition demonstrated in the context of practice at the expert level, which combines dimensions of understanding, performance, and value as an integrated whole.⁶⁹ A wealth of knowledge is embedded in the experience, discernment, and practice of expert-level RDN practitioners. The experienced practitioner observes events, analyzes them to make new connections between events and ideas, and produces a synthesized whole. The knowledge and skills acquired through practice will continually expand and

mature. The SOPP indicators are refined with each review of these Standards as expert-level RDNs systematically record and document their experiences, often through the use of exemplars. Exemplary actions of individual sustainable food systems RDNs in practice settings and professional activities that enhance patient/client/population care and/or services can be used to illustrate outstanding practice models.

FUTURE DIRECTIONS

SOPPs are dynamic documents. Future revisions will reflect changes and advances in practice, changes to dietetics education standards, new research, regulatory changes, and outcomes of practice audits. Continued clarity and differentiation of the 3 practice levels in support of safe, adequate, effective, and quality practice in sustainable food systems remains an expectation of each revision to serve tomorrow's

These standards have been formulated for use by individuals in self-evaluation, practice advancement, development of practice guidelines and specialist credentials, and as indicators of quality. These standards do not constitute medical or other professional advice, and should not be taken as such. The information presented in the standards is not a substitute for the exercise of professional judgment by the credentialed nutrition and dietetics practitioner. These standards are not intended for disciplinary actions or determinations of negligence or misconduct. The use of the standards for any other purpose than that for which they were formulated must be undertaken within the sole authority and discretion of the user.

practitioners and their patients, clients, and customers.

Looking forward, this SOPP can guide the development of future educational opportunities, toolkits, research, and other resources related to sustainable food systems. With the increasing urgency of environmental challenges and the continued growth of public interest in sustainability, RDNs can provide valuable clarity, evidence-based recommendations, and leadership in sustainable food systems. Achieving the vision of sustainable food systems requires that RDNs develop foundational knowledge in this area; contribute to the generation of rigorous, interprofessional research and its translation for practitioners and policymakers; and promote the principles of sustainable food systems across all practice settings. This SOPP provides a framework for the continued development of sustainable food systems practice, for individual RDNs and for the profession.

SUMMARY

RDNs face complex situations every day. Addressing the unique needs of each situation and applying standards appropriately is essential to providing safe, timely, person-centered quality care and service. All RDNs are advised to conduct their practice based on the most recent edition of the Code of Ethics for the Nutrition and Dietetics Profession, the Scope of Practice for RDNs, and the SOP in Nutrition Care and SOPP for RDNs, along with applicable federal and state regulations and facility accreditation standards. The SOPP for RDNs in Sustainable Food Systems are complementary documents and are key resources for RDNs at all knowledge and performance levels. These standards can and should be used by all RDNs to consistently improve and appropriately demonstrate competence and value as providers of safe, effective, equitable, and quality nutrition and dietetics services. This applies not only to RDNs whose daily work is devoted to sustainable food systems practice, but also to RDNs across all practice settings. Given that sustainable food systems are fundamental to the practice of nutrition and dietetics, all RDNs have the opportunity, and indeed the responsibility, to align their work with the principles of sustainable food systems.

These standards also serve as a professional resource for self-evaluation and professional development for RDNs specializing in sustainable food systems practice. Just as a professional's self-evaluation and continuing education process is an ongoing cycle, these standards are also a work in progress and will be reviewed and updated every 7 years.

Current and future initiatives of the Academy, as well as advances in sustainable food systems practice, will provide information to use in future updates and in further clarifying and documenting the specific roles and responsibilities of RDNs at each level of practice. As a quality initiative of the Academy and HEN DPG, these standards are an application of continuous quality improvement and represent an important collaborative endeavor.

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STATEMENT OF POTENTIAL CONFLICT OF INTEREST

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AUTHOR CONTRIBUTIONS

Each author contributed to drafting and editing the components of the article (eg, article text and figures) and reviewed all drafts of the manuscript.

Standards of Professional Performance for Registered Dietitian Nutritionists in Sustainable, Resilient, and Healthy Food and Water Systems (Sustainable Food Systems)

Standard 1: Quality in Practice

The registered dietitian nutritionist (RDN) provides quality services using a systematic process with identified ethics, leadership, accountability, and dedicated resources.

Rationale:

Quality practice in nutrition and dietetics is built on a solid foundation of education and supervised practice, credentialing, evidence-based practice, demonstrated competence, and adherence to established professional standards. Quality practice requires systematic measurement of outcomes, regular performance evaluations, and continuous improvement.

Indicators for Standard 1: Quality in Practice			The "X" signifies the indicators for the level of practice		
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			Competent	Proficient	Expert
<i>Each RDN:</i>					
1.1	Complies with applicable laws and regulations as related to their area(s) of practice		X	X	X
	1.1A	Follows laws and regulations governing food and water systems at the consumer level (eg, safe food handling and labeling laws)	X	X	X
	1.1B	Adheres to laws and regulations regarding discrimination (eg, hiring, contractors, and customers), and provides appropriate signage and training as needed (eg, US Department of Agriculture [USDA] nondiscrimination statement)	X	X	X
	1.1C	Identifies and complies with appropriate laws and regulations governing food and water availability at the community level (eg, agricultural production practices, hazard analysis and critical control points, zoning ordinances, and environmental regulations)		X	X
	1.1D	Provides training and technical assistance to applicable stakeholders on local, state, and federal laws and regulations regarding Sustainable Food Systems			X
1.2	Performs within individual and statutory scope of practice and applicable laws and regulations		X	X	X
1.3	Adheres to sound business and ethical billing practices applicable to the role and setting		X	X	X
	1.3A	Adopts practices that are consistent with customer populations' socioeconomic status	X	X	X
	1.3B	Demonstrates ethical and responsible practices that consider human, environmental, social, and economic resources	X	X	X
	1.3C	Assures ethical and accurate reporting of services and compliance with contracts or funder requirements, when applicable	X	X	X
	1.3D	Promotes practices that support fair wages, appropriate benefits, and safe working conditions for employees		X	X
<i>(continued on next page)</i>					

Figure 2. Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 1: Quality in Practice				The "X" signifies the indicators for the level of practice		
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				Competent	Proficient	Expert
Each RDN:				Competent	Proficient	Expert
	1.3E	Understands implications of prices paid and payment terms for vendors			X	X
		1.3E1	Aims to procure food, beverages, and services that are produced, processed, and delivered using fair, equitable, and ethical practices (eg, prioritize companies paying fair wages; companies without labor violations; and marginalized food producers [ie, grower and farmer], and ranchers, including women and people of color)		X	X
		1.3E2	Negotiates a fair competitive price and payment terms with vendors (eg, food producer, local food distributor, or composter)		X	X
		1.3E3	Communicates with vendors and customers about the "true cost of food" (ie, a way of viewing food costs that includes the hidden costs or externalities of the food system, such as the costs of farm support payments, environmental degradation, or health care costs related to diet-related disease)			X
1.4	Uses national quality and safety data (eg, National Academies of Sciences, Engineering, and Medicine: Health and Medicine Division, National Quality Forum, Institute for Healthcare Improvement) to improve the quality of services provided and to enhance customer-centered services			X	X	X
	1.4A	Complies with production, processing, marketing, procurement, and waste management standards (eg, Good Agricultural Practices, Energy Star) and evidence-based third-party certifications (eg, Food Justice—certified, Marine Stewardship Council—certified) that support Sustainable Food Systems, when applicable or available		X	X	X
	1.4B	Promotes production, processing, marketing, procurement, and waste management standards and evidence-based third-party certifications that support Sustainable Food Systems			X	X
	1.4C	Develops or contributes to the development of production, processing, marketing, procurement, and waste management standards and evidence-based third-party certifications that support Sustainable Food Systems				X
1.5	Uses a systematic performance improvement model that is based on practice knowledge, evidence, research, and science for delivery of the highest-quality services			X	X	X
	1.5A	Uses qualitative and quantitative Sustainable Food Systems data to analyze, monitor, and improve performance		X	X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 1: Quality in Practice						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
	1.5B	Develops data collection tools to measure Sustainable Food Systems performance improvement			X	X
1.6	Participates in or designs an outcomes-based management system to evaluate safety, effectiveness, quality, person-centeredness, equity, timeliness, and efficiency of practice			X	X	X
	1.6A	Involves colleagues and others, as applicable, in systematic outcomes management		X	X	X
		1.6A1	Solicits Sustainable Food Systems ideas from colleagues and others for feasibility of implementation	X	X	X
		1.6A2	Encourages participation in internal Sustainable Food Systems performance improvement initiatives (eg, identification of performance indicators, data collection methods, and analysis)		X	X
		1.6A3	Provides incentives for meeting or exceeding Sustainable Food Systems performance improvement indicators			X
		1.6A4	Designs an outcomes-based management system related to Sustainable Food Systems			X
		1.6A5	Communicates concerns, priorities, and actions needed to best meet target population needs and improve Sustainable Food Systems outcomes			X
	1.6B	Defines expected outcomes		X	X	X
		1.6B1	Collaborates with stakeholders to identify and refine outcomes, ensuring that stakeholders are diverse and reflect the communities served		X	X
		1.6B2	Adapts expected outcomes as needed to account for social determinants of health, health disparities, cultural competence, racial equity, and health equity		X	X
	1.6C	Uses indicators that are specific, measurable, attainable, realistic, and timely (S.M.A.R.T.)		X	X	X
	1.6D	Measures quality of services in terms of structure, process, and outcomes		X	X	X
		1.6D1	Performs Sustainable Food Systems performance improvement audits		X	X
	1.6E	Incorporates electronic clinical quality measures to evaluate and improve care of patients/clients at risk for malnutrition or with malnutrition (www.eatrightpro.org/emeasures)		X	X	X
		1.6E1	Screens customers for food insecurity and takes action per protocol	X	X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 1: Quality in Practice						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
	1.6F	Documents outcomes and patient reported outcomes (eg, PROMIS[®])		X	X	X
		1.6F1	Analyzes Sustainable Food Systems performance improvement outcomes (eg, reductions in pre-consumer and post-consumer food waste)		X	X
	1.6G	Participates in, coordinates, or leads program participation in local, regional, or national registries and data warehouses used for tracking, benchmarking, and reporting service outcomes		X	X	X
		1.6G1	Identifies relevant data sources (eg, USDA Economic Research Service Food Atlas, Loss-Adjusted Food Availability Data)	X	X	X
		1.6G2	Contributes to surveys, census, other registries maintained or administered by government agencies and/or nongovernmental organization		X	X
		1.6G3	Provides data that demonstrates the benefits of Sustainable Food Systems to their organization		X	X
1.7	Identifies and addresses potential and actual errors and hazards in provision of services or brings to attention of supervisors and team members as appropriate			X	X	X
	1.7A	Recognizes potential environmental health issues (eg, phalates) in foods, food packaging, and preparation methods		X	X	X
1.8	Compares actual performance to performance goals (ie, Gap Analysis, SWOT [Strengths, Weaknesses, Opportunities, and Threats] Analysis, PDCA [Plan-Do-Check-Act] Cycle, DMAIC [Define, Measure, Analyze, Improve, Control])			X	X	X
	1.8A	Reports and documents action plan to address identified gaps in care and/or service performance		X	X	X
	1.8B	Integrates Sustainable Food Systems goals and objectives into action plans			X	X
1.9	Evaluates interventions and workflow process(es) and identifies service and delivery improvements			X	X	X
	1.9A	Ensures that services account for social determinants of health, health disparities, cultural competence, racial equity, and health equity		X	X	X
	1.9B	Establishes procedures to ensure continuous improvement of service and delivery in alignment with Sustainable Food Systems principles (eg, resource conservation, food recovery, and waste reduction)			X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 1: Quality in Practice					
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice		
Each RDN:			Competent	Proficient	Expert
1.10	Improves or enhances patient/client/population care and/or services working with others based on measured outcomes and established goals		X	X	X
	1.10A	Collects and analyzes customer outcomes and feedback to identify needs for Sustainable Food Systems improvements		X	X
	1.10B	Directs performance improvement efforts to ensure achievement of Sustainable Food Systems outcomes, standards, and best practices			X

Examples of Outcomes for Standard 1: Quality in Practice	
<ul style="list-style-type: none"> Practice decisions account for Sustainable Food Systems principles and outcomes Sustainable Food Systems approaches are incorporated into food, nutrition, health, and practice Practice is enhanced through interprofessional^b collaborations Sustainable Food Systems actions are within scope of practice and applicable laws and regulations National quality standards and best practices are evident in customer-centered services Use of Sustainable Food Systems practices are evident in customer-centered services Performance improvement systems specific to program(s)/service(s) are established and updated as needed; are evaluated for effectiveness in providing desired outcomes data and striving for excellence in collaboration with other team members Performance indicators support Sustainable Food Systems and are specific, measurable, attainable, realistic, and timely (S.M.A.R.T.) Aggregate Sustainable Food Systems outcomes results meet pre-established criteria Quality improvement results direct refinement and advancement of Sustainable Food Systems practice Concepts of social determinants of health, health disparities, cultural competence, racial equity, and health equity are integrated into Sustainable Food Systems practices 	

Standard 2: Competence and Accountability	
The registered dietitian nutritionist (RDN) demonstrates competence in and accepts accountability and responsibility for ensuring safe, quality practice and services.	
Rationale:	
Competence and accountability in practice includes continuous acquisition of knowledge, skills, experience, and judgment in the provision of safe, quality customer-centered service.	

Indicators for Standard 2: Competence and Accountability					
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice		
Each RDN:			Competent	Proficient	Expert
2.1	Adheres to the code(s) of ethics (eg, Academy/Commission on Dietetic Registration [CDR], other national organizations, and/or employer code of ethics)		X	X	X
<i>(continued on next page)</i>					

Figure 2. *(continued)* Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 2: Competence and Accountability						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
	2.1A	Discloses conflicts of interest		X	X	X
		2.1A1	Supports transparency within food and water systems (eg, easy access to food and water systems processes, marketing, research, funding, laws, rules)	X	X	X
		2.1A2	Evaluates potential partnerships and funding sources; and prioritizes partnerships that are in alignment with Sustainable Food Systems principles		X	X
2.2	Integrates the Standards of Practice (SOP) and Standards of Professional Performance (SOPP) into practice, self-evaluation, and professional development			X	X	X
	2.2A	Integrates applicable focus area(s) SOP and/or SOPP into practice (www.eatrightpro.org/sop)		X	X	X
	2.2B	Develops policies, procedures, and professional development strategies using the SOPP in Sustainable Food Systems			X	X
	2.2C	Develops performance criteria and quality assurance measures based on SOPP in Sustainable Food Systems to evaluate and assure competent practice				X
2.3	Demonstrates and documents Sustainable Food Systems competence in practice and delivery of customer-centered service(s)			X	X	X
	2.3A	Reviews and obtains guidance as needed to understand principles of Sustainable Food Systems applicable to role and responsibilities		X	X	X
	2.3B	Monitors program adherence to Sustainable Food Systems principles and advocates for improvements if needed			X	X
	2.3C	Creates and updates internal processes for documenting Sustainable Food Systems competence in practice and delivery of services				X
2.4	Assumes accountability and responsibility for actions and behaviors			X	X	X
	2.4A	Identifies, acknowledges, and corrects errors		X	X	X
	2.4B	Maintains ethical and professional integrity when integrating Sustainable Food Systems principles into practice (eg, follows nutrition and dietetics credentialing and/or licensure, organizational policies, performance standards)		X	X	X
2.5	Conducts self-evaluation at regular intervals			X	X	X
	2.5A	Identifies needs for professional development in Sustainable Food Systems		X	X	X
	2.5B	Evaluates organizational culture and policies, staff diversity, and cultural competence to assess potential impact on organizational goals related to Sustainable Food Systems (eg, encourages			X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 2: Competence and Accountability					
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice		
Each RDN:			Competent	Proficient	Expert
		videoconferencing to reduce air travel or to accommodate family responsibilities)			
2.6	Designs and implements plans for professional development in Sustainable Food Systems		X	X	X
	2.6A	Develops plan and documents professional development activities in Sustainable Food Systems in career portfolio (eg, organizational policies and procedures, credentialing agency [ies])	X	X	X
	2.6B	Establishes professional goals that integrate Sustainable Food Systems principles into practice (eg, identifies conferences, events, or professional organizations to strengthen knowledge and interprofessional relationships; develops community-based participatory research skills)	X	X	X
	2.6C	Uses SOPP in Sustainable Food Systems to guide professional development plans	X	X	X
	2.6D	Identifies continuing education opportunities in Sustainable Food Systems	X	X	X
	2.6E	Integrates Sustainable Food Systems activities into employee position descriptions and performance evaluations		X	X
	2.6F	Provides opportunities for staff to receive training in topics that are important for Sustainable Food Systems, including limiting food waste, cultural competency, and racial equity training		X	X
2.7	Engages in evidence-based practice and uses best practices		X	X	X
	2.7A	Critically analyzes and incorporates Sustainable Food Systems best practices and evidence-based research from multiple disciplines into decision-making		X	X
	2.7B	Participates in committees, councils, or task forces that shape evidence-based practice and/or best practices in Sustainable Food Systems with consideration to diversity, equity, and inclusion		X	X
2.8	Participates in peer review of others as applicable to role and responsibilities		X	X	X
	2.8A	Participates in peer review activities consistent with setting and patient/client/customer population (eg, peer evaluation, peer supervision, performance evaluations)	X	X	X
	2.8B	Incorporates criteria into performance evaluations reflecting Sustainable Food Systems roles and responsibilities		X	X
	2.8C	Serves on advisory boards for Sustainable Food Systems organizations			X

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Figure 2. *(continued)* Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 2: Competence and Accountability					
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice		
Each RDN:			Competent	Proficient	Expert
2.9	Mentors and/or precepts nutrition and dietetics students/interns and others in Sustainable Food Systems		X	X	X
	2.9A	Pursues mentoring relationships and precepting opportunities with credentialed nutrition and dietetic practitioners, and nutrition and dietetics students/interns from marginalized populations	X	X	X
	2.9B	Provides interprofessional education and experiential learning opportunities in Sustainable Food Systems		X	X
	2.9C	Collaborates with colleges, universities, and other organizations in developing Sustainable Food Systems curricula			X
2.10	Pursues opportunities (education, training, credentials, certifications) to advance Sustainable Food Systems practice in accordance with laws and regulations, and requirements of practice setting		X	X	X
	2.10A	Participates in experiential learning related to Sustainable Food Systems, such as community-based or volunteer experiences	X	X	X
	2.10B	Seeks Sustainable Food Systems leadership opportunities at local, regional, national, and/or international levels		X	X
	2.10C	Integrates Sustainable Food Systems principles into the creation of new professional development opportunities			X

- Examples of Outcomes for Standard 2: Competence and Accountability**
- Practice reflects:
 - o Code(s) of ethics (eg, Academy/CDR, other national organizations, and/or employer code of ethics)
 - o Scope of Practice, Standards of Practice and Standards of Professional Performance
 - o Evidence-based practice and best practices
 - o CDR Essential Practice Competencies and Performance Indicators
 - Practice incorporates successful strategies for interactions with individuals/groups from diverse cultures and backgrounds
 - Competence is demonstrated and documented
 - Services provided are safe and customer-centered
 - Self-evaluations are conducted regularly to reflect commitment to lifelong learning and professional development and engagement
 - Professional development needs related to Sustainable Food Systems are identified and pursued
 - Directed learning is demonstrated
 - Relevant opportunities (education, training) within Sustainable Food Systems are pursued and created to advance practice
 - CDR recertification requirements are met

Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Standard 3: Provision of Services

The registered dietitian nutritionist (RDN) provides safe, quality service based on customer expectations and needs and the mission, vision, principles, and values of the organization/business.

Rationale:

Quality programs and services are designed, executed, and promoted based on the RDN's knowledge, skills, experience, judgment, and competence in addressing the needs and expectations of the organization/business and its customers.

Indicators for Standard 3: Provision of Services				The "X" signifies the indicators for the level of practice		
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				Competent	Proficient	Expert
Each RDN:				Competent	Proficient	Expert
3.1	Contributes to or leads in development and maintenance of programs/ services that integrate Sustainable Food Systems principles and address needs of the customer or target population(s)			X	X	X
	3.1A	Aligns Sustainable Food Systems program/service development with the mission, vision, principles, values, and service expectations and outputs of the organization/business		X	X	X
		3.1A1	Manages programs and services to integrate Sustainable Food Systems principles (eg, stewardship of natural resources, social responsibility, community engagement, and equitable opportunities to build wealth)		X	X
		3.1A2	Evaluates programs and services that integrate Sustainable Food Systems principles and applies quality improvement strategies		X	X
	3.1B	Uses the needs, expectations, and desired outcomes of the customers/populations (eg, patients/clients, families, community, decision makers, administrators, client organization[s]) in program/service development		X	X	X
		3.1B1	Develops short- and long-term goals or objectives for Sustainable Food Systems services; seeks assistance as needed	X	X	X
		3.1B2	Determines priorities, gaps, and opportunities for integrating Sustainable Food Systems principles into services		X	X
		3.1B3	Promotes practices, programs, and services that integrate Sustainable Food Systems principles to organizational stakeholders and community partners		X	X
		3.1B4	Identifies evidence-based resources to support programs and services that integrate Sustainable Food Systems principles		X	X
		3.1B5	Identifies and promotes policy, system, and environmental (built and natural) interventions that advance Sustainable Food Systems			X

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Indicators for Standard 3: Provision of Services				The "X" signifies the indicators for the level of practice		
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				Competent	Proficient	Expert
<i>Each RDN:</i>				Competent	Proficient	Expert
	3.1B6	Incorporates the social ecological model or Spectrum of Prevention ⁴¹ into planning programs and services that support Sustainable Food Systems principles				X
	3.1B7	Develops innovative programs that incorporate Sustainable Food Systems principles				X
	3.1C	Makes decisions and recommendations that reflect stewardship of time, talent, finances, and environment		X	X	X
	3.1C1	Shapes, modifies, and adapts Sustainable Food Systems programs and service delivery in alignment with budget requirements and priorities			X	X
	3.1D	Proposes programs and services that are customer-centered, culturally appropriate, and minimize disparities		X	X	X
	3.1D1	Plans programs and services that integrate Sustainable Food System principles to respond to community needs and minimize health disparities among marginalized populations			X	X
3.2	Promotes public access and referral to credentialed nutrition and dietetics practitioners for quality food and nutrition programs and services			X	X	X
	3.2A	Contributes to or designs referral systems that promote access to qualified, credentialed nutrition and dietetics practitioners with expertise in Sustainable Food Systems		X	X	X
	3.2A1	Joins networks (eg, food policy councils, city planning commission, and professional associations) that include diverse Sustainable Food Systems professionals (eg, food producers, planners, processors, economic developers, distributors, retailers, and commercial waste haulers)		X	X	X
	3.2A2	Establishes and/or facilitates networks that include credentialed nutrition and dietetics practitioners and other disciplines who promote Sustainable Food Systems			X	X
	3.2A3	Develops community strategic plans that support referrals to Sustainable Food Systems programs and services				X
	3.2B	Refers customers to appropriate providers with expertise in Sustainable Food Systems when requested services or identified needs exceed the RDN's individual scope of practice (eg, food producers, agricultural economists, and climate scientists)		X	X	X
	3.2B1	Verifies potential referral provider's services and practices reflects evidence-based information/research and professional standards of practice		X	X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 3: Provision of Services						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
	3.2C	Monitors effectiveness of referral systems and modifies as needed to achieve desirable outcomes		X	X	X
		3.2C1	Evaluates and documents impact of referral systems as related to targeted outcomes and Sustainable Food Systems	X	X	X
		3.2C2	Addresses gaps in meeting customer/target population referral needs		X	X
		3.2C3	Communicates impact of referrals related to Sustainable Food Systems to decision makers and the community		X	X
		3.2C4	Develops and implements quality improvement processes to strengthen Sustainable Food Systems referral systems			X
3.3	Contributes to or designs customer-/target population–centered services			X	X	X
	3.3A	Assesses needs, beliefs/values, goals, resources of the customer, and social determinants of health		X	X	X
		3.3A1	Identifies individual nutrition assessment indicators (eg, diet history, food frequency questionnaire) that incorporate Sustainable Food Systems principles (eg, assessing sources of food and water for quality and safety)	X	X	X
		3.3A2	Ensures community health needs assessment indicators incorporate Sustainable Food Systems principles (eg, affordability and cultural acceptability of available foods)	X	X	X
		3.3A3	Considers Sustainable Food Systems indicators when evaluating health disparities and sociodemographic determinants of customers and communities		X	X
		3.3A4	Conducts comprehensive Sustainable Food Systems assessments (eg, community food assessment)			X
		3.3A5	Develops recommendations for strengthening services that support Sustainable Food Systems principles			X
	3.3B	Uses knowledge of the customer's/target population's health conditions, cultural beliefs, and business objectives/services to guide design and delivery of customer-centered services		X	X	X
		3.3B1	Identifies local and regional entities who integrate Sustainable Food Systems principles into services (eg, community-supported agriculture, permaculture design program for community and urban gardens, and youth development programs)	X	X	X
		3.3B2	Partners with community entities who integrate Sustainable Food Systems principles into services		X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 3: Provision of Services				The "X" signifies the indicators for the level of practice		
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				Competent	Proficient	Expert
Each RDN:				Competent	Proficient	Expert
	3.3B3	Applies recommendations from Sustainable Food Systems assessments			X	X
	3.3B4	Designs and delivers programs and services that incorporate Sustainable Food Systems principles (eg, prioritizing cultural needs, norms, practices, skills, and values)				X
	3.3B5	Designs, contributes to, and/or implements organizational, community, and public policies that integrate Sustainable Food Systems principles and support customer/target population needs				X
	3.3C	Communicates principles of disease prevention and behavioral change appropriate to the customer or target population		X	X	X
	3.3C1	Considers social determinants of health when linking messages and modes of communication to the needs of a target population		X	X	X
	3.3C2	Educates customers/target population about Sustainable Food Systems issues relevant to disease prevention and behavioral change (eg, food safety knowledge to help with decisions about food discards)		X	X	X
	3.3C3	Develops nutrition education that integrates Sustainable Food Systems principles for customers/target populations			X	X
	3.3D	Collaborates with the customers to set priorities, establish goals, and create customer-centered action plans to achieve desirable outcomes		X	X	X
	3.3E	Involves customers in decision making that supports Sustainable Food Systems		X	X	X
3.4	Executes programs/services that integrate Sustainable Food Systems principles in an organized, collaborative, cost-effective, and customer-centered manner			X	X	X
	3.4A	Collaborates and coordinates with peers, colleagues, stakeholders, and within interprofessional teams		X	X	X
	3.4A1	Manages relationships with organizations who provide Sustainable Food Systems programs/services to communities			X	X
	3.4A2	Organizes a network of engaged stakeholders around Sustainable Food Systems issues within an organization or community (eg, a policy advisory council or community of practice)				X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 3: Provision of Services						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
		3.4A3	Identifies partnerships and opportunities that expand implementation of Sustainable Food Systems initiatives			X
	3.4B	Uses and participates in, or leads in the selection, design, execution, and evaluation of customer programs and services that integrate Sustainable Food Systems principles (eg, nutrition screening system, medical and retail foodservice, electronic health records, interprofessional programs, community education, grant management, community food assessment, food system initiatives/campaigns, food and water systems education, and food and water systems impact analysis for customers)		X	X	X
		3.4B1	Conducts needs assessments with partners on programs and services that integrate Sustainable Food Systems principles		X	X
		3.4B2	Plans and implements programs and services that integrate Sustainable Food Systems principles based on community needs, assets, culture, evidence-based strategies, and available resources		X	X
		3.4B3	Evaluates and reports on the health, environment, social, and economic impacts of food and water systems initiatives within a community			X
		3.4B4	Establishes best practices and evidence-based guidelines for programs and services that integrate Sustainable Food Systems principles			X
	3.4C	Uses and develops or contributes to selection, design, and maintenance of policies, procedures (eg, discharge planning/transitions of care and emergency planning), protocols, standards of care, technology resources (eg, Health Insurance Portability and Accountability Act [HIPAA]-compliant telehealth platforms), and training materials that reflect evidence-based practice in accordance with applicable laws and regulations		X	X	X
		3.4C1	Maintains current knowledge of local, state, and federal policies that influence food and water systems (eg Farm Bill and Child Nutrition Reauthorization)	X	X	X
		3.4C2	Maintains current knowledge of evidence-based third-party certifications (eg, Food Justice—certified) that support Sustainable Food Systems	X	X	X
		3.4C3	Integrates Sustainable Food Systems principles into education and training materials		X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 3: Provision of Services						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
		3.4C4	Prepares evidence-based outreach, education, and advocacy tools on Sustainable Food Systems issues		X	X
		3.4C5	Participates in making policy, research, and program recommendations within a food policy council or similar entity		X	X
		3.4C6	Serves as a consultant on initiatives that promote Sustainable Food Systems principles			X
	3.4D	Uses and participates in or develops processes for order writing and other nutrition-related privileges, in collaboration with the medical staff,^c or medical director (eg, post-acute care settings, dialysis center, public health, community, and free-standing clinic settings), consistent with state practice acts, federal and state regulations, organization policies, and medical staff rules, regulations, and bylaws		X	X	X
		3.4D1	Uses and participates in or leads development of processes for privileges or other facility-specific processes related to (but not limited to) implementing physician/nonphysician practitioner^d-driven delegated orders or protocols, initiating or modifying orders for therapeutic diets, medical foods/nutrition supplements, dietary supplements, enteral and parenteral nutrition, laboratory tests, medications, and adjustments to fluid therapies or electrolyte replacements	X	X	X
			3.4D1i Establishes RDN as a key stakeholder in facility processes with implications for Sustainable Food Systems principles (eg, procurement of food and materials and waste management)		X	X
		3.4D2	Uses and participates in or leads development of processes for privileging for provision of nutrition-related services, including (but not limited to) initiating and performing bedside swallow screenings, inserting and monitoring nasoenteric feeding tubes, providing home enteral nutrition or infusion management services (eg, ordering formula and supplies), and indirect calorimetry measurements	X	X	X
			3.4D2i Establishes RDN as a valued expert in integrating Sustainable Food Systems principles into nutrition-related services and materials		X	X

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Indicators for Standard 3: Provision of Services						
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Each RDN:				Competent	Proficient	Expert
	3.4E	Complies with established billing regulations, organization policies, and grant funder guidelines, if applicable to role and setting, and adheres to ethical and transparent financial management and billing practices		X	X	X
	3.4F	Communicates with the interprofessional team and referring party consistent with HIPAA rules for use and disclosure of customer's personal health information		X	X	X
3.5	Uses professional, technical, and support personnel appropriately in the delivery of customer-centered care or services that integrate Sustainable Food Systems principles in accordance with laws, regulations, and organization policies and procedures			X	X	X
	3.5A	Assigns activities consistent with Sustainable Food Systems principles, including direct care to patients/clients, consistent with the qualifications, experience, and competence of professional, technical, and support personnel		X	X	X
		3.5A1	Integrates Sustainable Food Systems principles into human resource policies, practices, and training		X	X
	3.5B	Supervises professional, technical, and support personnel		X	X	X
		3.5B1	Develops and implements incentives for compliance with Sustainable Food Systems practices		X	X
		3.5B2	Monitors and evaluates compliance to Sustainable Food Systems practices and procedures		X	X
3.6	Designs and implements food delivery systems that integrate Sustainable Food Systems principles to meet the needs of customers			X	X	X
	3.6A	Collaborates in or leads the design of food delivery systems that integrate Sustainable Food Systems principles to address health care needs and outcomes (including nutrition status), ecological sustainability, and to meet the culture and related needs and preferences of target populations (eg, clients or customers of health care facilities, worksites, retail operations, schools, child and adult day-care centers, food redistribution in community feeding sites and local food banks, farmer's markets, public drinking fountains, community gardens, and urban farms)		X	X	X
		3.6A1	Analyzes customer and community needs related to Sustainable Food Systems	X	X	X
		3.6A2	Adopts or develops delivery systems that improve Sustainable Food Systems initiatives		X	X
<i>(continued on next page)</i>						

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Each RDN:					Competent	Proficient	Expert
			3.6A2i	Establishes service delivery policies to procure sustainable food, water, beverages, and service ware		X	X
			3.6A2ii	Partners with community or regional soil- and water-conservation districts		X	X
		3.6A3	Promotes food and water delivery systems as a means to improve health, environments (built and natural), and profitability for both food producers and the organization			X	X
		3.6A4	Evaluates and continuously improves food- and water-delivery systems based on customer feedback and industry standards				X
	3.6B	Participates in, consults/collaborates with, or leads the development of menus to address health, nutritional, and cultural needs of target population(s) that integrate Sustainable Food Systems principles and are consistent with federal, state, or funding source regulations or guidelines			X	X	X
		3.6B1	Assesses dietary needs and preferences of target population(s) in ways that build social, cultural, and ethical capital, including respect for cultural needs, norms, and values		X	X	X
		3.6B2	Ensures that dietary choices include options consistent with Sustainable Food Systems principles		X	X	X
		3.6B3	Maintains menu, production, and standardized recipe practices that are based on Sustainable Food Systems principles			X	X
			3.6B3i	Incorporates food and beverages produced or procured using Sustainable Food Systems principles into culturally acceptable and nutrient-dense menus		X	X
		3.6B4	Trains staff on Sustainable Food Systems principles for recipe and menu development			X	X
		3.6B5	Implements procurement policies that incorporate Sustainable Food Systems principles (eg, food and equipment procurement)			X	X
		3.6B6	Develops and/or disseminates menu policies and practices that integrate Sustainable Food Systems principles (eg, menus, recipes, cooking techniques, and plating diagrams)				X
					<i>(continued on next page)</i>		

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Indicators for Standard 3: Provision of Services						
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Each RDN:				Competent	Proficient	Expert
	3.6C	Participates in, consults/collaborates with, or leads interprofessional process for determining medical foods/nutritional supplements, dietary supplements, enteral and parenteral nutrition formularies, and delivery systems that integrate Sustainable Food Systems principles for target population(s)		X	X	X
3.7	Maintains records of services provided that integrate Sustainable Food Systems principles			X	X	X
	3.7A	Documents according to organization policies, procedures, standards, and systems, including electronic health records		X	X	X
	3.7B	Implements data management systems to support interoperable data collection, maintenance, and utilization		X	X	X
	3.7B1	Develops or collaborates with the interprofessional team to capture Sustainable Food Systems—specific data through data-collection tools			X	X
	3.7C	Uses data to document outcomes of services (ie, staff productivity, cost/benefit, budget compliance, outcomes, quality of services, and community impact) and provide justification for maintenance or expansion of services		X	X	X
	3.7C1	Shares program outcomes and impact with organization, customers, or community participants (eg, pounds of food waste averted and reduction in energy costs from more efficient appliances)		X	X	X
	3.7D	Uses data to demonstrate program/service achievements and compliance with accreditation standards, laws, and regulations		X	X	X
3.8	Advocates for provision of quality food and nutrition services that integrate Sustainable Food Systems principles as part of public policy			X	X	X
	3.8A	Communicates with policymakers regarding the benefit/cost of quality food and nutrition services		X	X	X
	3.8A1	Identifies policies and proposed legislation at local, state, federal, and international levels that impact Sustainable Food Systems services		X	X	X
	3.8A2	Collaborates with groups working on Sustainable Food Systems policies and legislation at local, state, federal, and international levels			X	X
	3.8A3	Uses evidence-based information to connect individual and population nutrition and health outcomes to Sustainable Food Systems practices as a means to influence policy			X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

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Each RDN:				Competent	Proficient	Expert
		3.8A4	Works in collaboration with community organizations, including grassroots campaigns, to understand and communicate community perspectives on benefit/cost of quality Sustainable Food Systems services to policymakers		X	X
		3.8A5	Performs Sustainable Food Systems policy analysis to identify impacts on health, economic, social, and environmental outcomes and identifies gaps and opportunities in current public policies			X
		3.8A6	Develops and implements a communication plan to educate policymakers about benefit/cost of quality Sustainable Food Systems services			X
		3.8A7	Evaluates effectiveness of public policy strategies that advance Sustainable Food Systems services and adjusts strategies as needed			X
		3.8A8	Facilitates or participates in forums about proposed legislation, rules, or codes that impact the delivery of quality Sustainable Food Systems services			X
		3.8A9	Develops draft legislation or policies in coordination with policymakers that advance Sustainable Food Systems services			X
	3.8B	Advocates in support of food and nutrition programs and services for populations with special needs and chronic conditions		X	X	X
		3.8B1	Advocates for policy, systems, and environmental (built and natural) changes that strengthen services and integrate Sustainable Food Systems principles that advance community food, nutrition, and water security, with an emphasis on marginalized populations, such as low-income groups, women, and communities of color (eg, farm to school; Child Nutrition Programs; Special Supplemental Nutrition Program for Women, Infants, and Children; Supplemental Nutrition Assistance Program; Senior Farmers Market Nutrition Program; and healthy food options in retail venues)	X	X	X
		3.8B1i	Promotes and communicates the benefits of policy changes that support local and regional food systems (eg, urban farming, community and school gardens, community-supported agriculture, value-added processing, financing for beginning food producers, food hubs, regional branding, and food cooperatives)		X	X

(continued on next page)

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Indicators for Standard 3: Provision of Services					The "X" signifies the indicators for the level of practice		
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators					Competent	Proficient	Expert
Each RDN:					Competent	Proficient	Expert
			3.8B1ii	Promotes and communicates the benefits of policies and initiatives that protect ecosystem health (eg, soil, water, air, energy, and biodiversity)		X	X
	3.8C	Advocates for protection of the public through multiple avenues of engagement (eg, legislative action and establishing effective relationships with elected leaders and regulatory officials, participation in various Academy committees, workgroups and task forces, Dietetic Practice Groups, Member Interest Groups, and State Affiliates)			X	X	X
		3.8C1		Advocates for public policies that support Sustainable Food Systems principles	X	X	X
		3.8C2		Serves on local, state, federal, or international committees that support policies and initiatives that improve the delivery of Sustainable Food Systems services		X	X
		3.8C3		Leads advocacy on Sustainable Food Systems issues as they pertain to nutrition and health		X	X

- Examples of Outcomes for Standard 3: Provision of Services**
- Program/service design and systems reflect organization/business mission, vision, principles, values, and customer needs and expectations
 - Customers evaluate their food and beverage consumption goals based on the contributions to health and sustainability
 - Customer-centered needs and preferences are met
 - Customers are satisfied with services and products
 - Customers have access to food assistance
 - Customers have access to food and nutrition services
 - Support personnel are trained in Sustainable Food System policies and goals and their compliance is routinely monitored
 - Foodservice system incorporates sustainability practices addressing energy and water use and waste management
 - Menus reflect the cultural, health, and/or nutritional needs of target population(s) and consideration of ecological sustainability
 - Evaluations reflect expected outcomes and established goals
 - Effective screening and referral services are established or implemented as designed
 - Ethical and transparent financial management and billing practices are used per role and setting
 - Culturally appropriate policies and legislation are implemented that conserve energy, water, and soil; minimize waste; enhance diversity of the food supply; and use sustainably produced food and beverages
 - Community-based food systems are vibrant and economically available

Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Standard 4: Application of Research
 The registered dietitian nutritionist (RDN) applies, participates in, and/or generates research to enhance practice. Evidence-based practice incorporates the best available research/evidence and information in the delivery of nutrition and dietetics services.
Rationale:
 Application, participation, and generation of research promote improved safety and quality of nutrition and dietetics practice and services.

Indicators for Standard 4: Application of Research					
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice		
Each RDN:			Competent	Proficient	Expert
4.1	Reviews best available research/evidence and information for application to practice		X	X	X
	4.1A	Understands basic research design and methodology	X	X	X
	4.1B	Ensures that practice decisions are supported by peer-reviewed scientific literature or, when such data are not available, credible information from relevant sources (eg, government and national/international nongovernmental organization publications) and disciplines (eg, public health, environmental science, and agricultural economics)	X	X	X
	4.1C	Identifies Sustainable Food Systems relevant databases (eg, Agricola, Agris, and Economic Research Service) and performs systematic reviews of the literature	X	X	X
	4.1D	Demonstrates the experience and critical thinking skills required to evaluate strength of original research, including limitations and potential bias and evidence-based guidelines relevant to Sustainable Food Systems		X	X
	4.1E	Identifies common indicators or outcome measures of Sustainable Food Systems		X	X
	4.1F	Critically evaluates research and research methodologies that have historically been used to justify or reinforce the subjugation of marginalized populations			X
4.2	Uses best available research/evidence and information as the foundation for evidence-based practice that supports Sustainable Food Systems		X	X	X
	4.2A	Uses validated indicators or outcome measures of Sustainable Food Systems in research and/or practice	X	X	X
	4.2B	Translates Sustainable Food Systems research and evidence to inform strategies in evidence-based practice	X	X	X
	4.2C	Applies an evidence-based approach to develop and/or evaluate proposals compared to existing food and water laws and regulations		X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 4: Application of Research					
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice		
Each RDN:			Competent	Proficient	Expert
	4.2D	Critically analyzes current organizational practices and updates systems and processes in accordance with current evidence on Sustainable Food Systems			X
4.3	Integrates best available research/evidence and information related to Sustainable Food Systems with best practices, clinical and managerial expertise, and customer values		X	X	X
	4.3A	Evaluates and responds to the unintended consequences and externalities of food and water systems practices		X	X
	4.3B	Assesses the reciprocal/symbiotic relationship between diet and Sustainable Food Systems			X
4.4	Contributes to the development of new knowledge and research in nutrition and dietetics as it pertains to Sustainable Food Systems		X	X	X
	4.4A	Identifies gaps in research, evidence-based practice guidelines, and/or scientific literature		X	X
	4.4B	Promotes transparent process of identifying and managing biases and conflicts of interest as it relates to public and private funding of Sustainable Food Systems research		X	X
	4.4C	Evaluates impacts of food and water systems on environmental, economic, social, and health outcomes, with an emphasis on marginalized populations, including women and people of color		X	X
	4.4D	Participates in interprofessional research teams		X	X
	4.4E	Assembles and leads interprofessional research teams needed to address Sustainable Food Systems issues			X
	4.4F	Contributes to the development of evidence-based practice guidelines and position papers			X
4.5	Promotes application of research in practice through alliances or collaboration with food and nutrition and other professionals and organizations		X	X	X
	4.5A	Disseminates the results and emphasizes the significance and value of Sustainable Food Systems research findings	X	X	X
	4.5B	Identifies key stakeholder groups and their Sustainable Food Systems priorities for further research collaboration		X	X
	4.5C	Advocates to stakeholder organizations (including government agencies, eg, the USDA National Institute of Food and Agriculture) for prioritizing and funding of Sustainable Food Systems research projects			X

Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

- Examples of Outcomes for Standard 4: Application of Research**
- Evidence-based practice, best practices, customer values, and Sustainable Food Systems principles are integrated in the delivery of nutrition and dietetics services
 - Customers receive appropriate services based on the effective application of best available research/evidence and information
 - Best available research/evidence and information is used as the foundation of evidence-based practice
 - Evidence-based research in Sustainable Food Systems supports public policy efforts

Standard 5: Communication and Application of Knowledge
 The registered dietitian nutritionist (RDN) effectively applies knowledge and expertise in communications.
Rationale:
 The RDN works with others to achieve common goals by effectively sharing and applying unique knowledge, skills, and expertise in food, nutrition, dietetics, and management services.

Indicators for Standard 5: Communication and Application of Knowledge						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
5.1	Communicates and applies current knowledge and information based on evidence that supports Sustainable Food Systems			X	X	X
	5.1A	Demonstrates critical thinking and problem-solving skills when communicating Sustainable Food Systems issues with others		X	X	X
		5.1A1	Assesses Sustainable Food Systems research for validity and generalizability by considering soundness of methodology, assumptions, and values	X	X	X
		5.1A2	Models critical thinking skills and provides inclusive environments for discussions		X	X
	5.1B	Promotes applicability of Sustainable Food Systems principles across all areas of nutrition and dietetics practice			X	X
5.2	Selects appropriate information and the most effective communication method or format when communicating Sustainable Food Systems information that considers customer-centered care and services, and the needs of the individual/group/population			X	X	X
	5.2A	Uses communication methods (ie, oral, print, one-on-one, group, visual, electronic, and social media) targeted to various audiences		X	X	X
		5.2A1	Considers the current knowledge and viewpoints of the audience related to Sustainable Food Systems issues and responds to concerns in a respectful manner	X	X	X
		5.2A2	Performs demographic, psychological, and contextual analysis of audience (eg, values, knowledge, and beliefs) to determine the best communication strategy for presentation of Sustainable Food Systems concepts		X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 5: Communication and Application of Knowledge						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
	5.2B	Uses information technology to communicate, disseminate, manage knowledge, and support decision making		X	X	X
		5.2B1	Applies technologies relevant to Sustainable Food Systems (eg, social media, apps, and software for tracking food waste)		X	X
		5.2B2	Leads development and use of technology (eg, social media, geographic information system mapping, software applications, and infographics) to deliver Sustainable Food Systems information			X
5.3	Integrates knowledge of food and nutrition and Sustainable Food Systems with knowledge of health, culture, social sciences, communication, informatics, sustainability, and management			X	X	X
	5.3A	Incorporates knowledge of Sustainable Food Systems principles across diverse settings (eg, community, academic institutions, business and industry, and health care)		X	X	X
	5.3B	Interacts with and educates leaders in a variety of disciplines about Sustainable Food Systems principles			X	X
5.4	Shares current, evidence-based knowledge, and information of Sustainable Food Systems with various audiences			X	X	X
	5.4A	Guides customers, families, students, and interns in the application of Sustainable Food Systems knowledge and skills		X	X	X
		5.4A1	Integrates Sustainable Food Systems principles into existing patient and client education and professional development of RDNs; nutrition and dietetics technicians, registered; dietetics students; interns; and other professionals (eg, explaining food labels related to sustainability claims)		X	X
		5.4A2	Expands course curricula, site-specific learning activities, and research projects to include Sustainable Food Systems principles while meeting nutrition and dietetics education competencies (ie, for students/interns)			X
	5.4B	Assists individuals and groups to identify and secure appropriate and available Sustainable Food Systems educational and other resources and services		X	X	X
		5.4B1	Promotes and supports programs, businesses, policies and resources that incorporate Sustainable Food Systems practices (eg, Special Supplemental Nutrition Program for Women, Infants, and Children Farmer's Market Nutrition	X	X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 5: Communication and Application of Knowledge						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators				The "X" signifies the indicators for the level of practice		
Each RDN:				Competent	Proficient	Expert
			Program; local food purveyors; and commercial composters)			
	5.4C	Uses professional writing and verbal skills in all types of communications (eg, e-mails, reports, and social media)		X	X	X
		5.4C1	Delivers presentations and authors books and articles on Sustainable Food Systems for peers, consumers, health professionals, community groups, policymakers, and food systems leaders		X	X
		5.4C2	Functions as an expert or media spokesperson on Sustainable Food Systems (eg, interviews, guest commentary, and editorials)			X
	5.4D	Reflects knowledge of population characteristics in communication methods (eg, literacy, numeracy levels, need for translation of written materials and/or a translator, communication skills, and learning, hearing or vision disabilities)		X	X	X
5.5	Establishes credibility and contributes as a food and nutrition resource within the interprofessional health care and management team, organization, and community promoting Sustainable Food Systems strategies that enhance health and quality of life outcomes for target populations			X	X	X
	5.5A	Advocates for Sustainable Food Systems principles to be integrated into health care processes and policies		X	X	X
	5.5B	Conducts activities and provides resources to educate members of the interprofessional team about Sustainable Food Systems, its applications and impacts on human, environmental, economic, and social health			X	X
	5.5C	Serves as the Sustainable Food Systems expert on interprofessional teams (eg, facilities management, quality management, and campus dining)				X
5.6	Communicates performance improvement and research results through publications and presentations			X	X	X
	5.6A	Disseminates best practices and outcomes specific to Sustainable Food Systems (eg, institutional marketing materials, campus recruiting, annual reports, and score cards)			X	X
	5.6B	Develops grants and white papers, delivers presentations, and authors books and articles that incorporate and disseminate Sustainable Food Systems concepts and best practices to various stakeholders (eg, peers, consumers, health professionals, educators, community groups, policymakers, and food system leaders)				X
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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 5: Communication and Application of Knowledge					
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice		
Each RDN:			Competent	Proficient	Expert
5.7	Seeks opportunities to participate in and assume leadership roles with local, state, and national professional and community-based organizations (eg, government-appointed advisory boards, community coalitions, schools, food policy councils, and foundations or nonprofit organizations serving the food insecure) providing food and nutrition and Sustainable Food Systems expertise		X	X	X
	5.7A	Serves on local planning committees and task forces for health professionals, industry, and community	X	X	X
	5.7B	Introduces organizations to Sustainable Food Systems principles (eg, presentations, webinars, articles, and field trips)		X	X
	5.7C	Nominates peers for Sustainable Food Systems leadership positions		X	X
	5.7D	Integrates Sustainable Food Systems principles into organization's governance structure (eg, providing expert advice to food industry groups on corporate social responsibility metrics)			X
	5.7E	Serves as the Sustainable Food Systems expert for organizations (eg, represents the organization's sustainability efforts in external meetings, writes newsletters and editorials, and gives presentations)			X
	5.7F	Organizes and/or presents at state, regional, national, and international meetings on Sustainable Food Systems issues			X
	5.7G	Leads Sustainable Food Systems initiatives within organizations (eg, policy advisory councils, coalitions, nonprofit organizations, or primary place of employment)			X
	5.7H	Develops, directs, and manages Sustainable Food Systems professional workshops, conferences, and meetings, ensuring diversity, equity, and inclusion in conference experts and attendees			X

Examples of Outcomes for Standard 5: Communication and Application of Knowledge	
<ul style="list-style-type: none"> • Food and nutrition students interested in Sustainable Food Systems are guided to internships that incorporate those principles • Expertise in Sustainable Food Systems—related food, nutrition, dietetics, and management is demonstrated and shared • Sustainable Food Systems principles are supported by information technology in practice • Interoperable information technology is used to support practice • Effective and efficient communications occur through appropriate and professional use of e-mail, texting, and social media tools • Individuals, groups, and stakeholders: <ul style="list-style-type: none"> o Receive current and appropriate Sustainable Food Systems—related information and customer-centered service o Demonstrate understanding of Sustainable Food Systems information and behavioral strategies received o Know how to obtain additional Sustainable Food Systems guidance from the RDN or other RDN-recommended resources • Leadership in Sustainable Food Systems is demonstrated through active professional and community involvement 	

Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Standard 6: Utilization and Management of Resources
 The registered dietitian nutritionist (RDN) uses resources effectively and efficiently.
Rationale:
 The RDN demonstrates leadership through strategic management of time, finances, facilities, supplies, technology, natural, and human resources.

Indicators for Standard 6: Utilization and Management of Resources					
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice		
Each RDN:			Competent	Proficient	Expert
6.1	Uses a systematic approach to manage resources and improve outcomes		X	X	X
	6.1A	Works within existing programs or policies to conserve natural resources and minimize waste	X	X	X
	6.1B	Identifies opportunities for programs or policies that conserve natural resources and minimize waste		X	X
	6.1C	Assesses the use of natural resources (eg, soil, water, biodiversity, energy, paper, and cardboard) at departmental and organizational levels to establish benchmarks		X	X
	6.1D	Implements system-level policy and practice changes (eg, adopting new waste management systems across school districts or health care system)			X
6.2	Evaluates management of resources with the use of standardized performance measures and benchmarking as applicable		X	X	X
	6.2A	Uses the Standards of Excellence Metric Tool to self-assess quality in leadership, organization, practice, and outcomes for an organization (www.eatrightpro.org/excellencetool)	X	X	X
	6.2B	Assesses adequacy and pertinence of existing benchmarks and enhances Sustainable Food Systems metrics		X	X
	6.2C	Leads in strategic planning for qualification of Sustainable Food Systems specific goals and measures			X
	6.2D	Directs operational review reflecting evaluation of performance and benchmarking data to manage resources and modifications for design and delivery of Sustainable Food Systems programs and services			X
6.3	Evaluates safety, effectiveness, efficiency, productivity, sustainability practices, and value while planning and delivering services and products that integrate Sustainable Food Systems principles		X	X	X
	6.3A	Identifies improvements to ensure maximum impact of Sustainable Food Systems services and products		X	X

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

Indicators for Standard 6: Utilization and Management of Resources						
Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators			The "X" signifies the indicators for the level of practice			
Each RDN:			Competent	Proficient	Expert	
6.4	Participates in quality assurance and performance improvement (QAPI) and documents outcomes and best practices relative to resource management			X	X	X
	6.4A	Collects QAPI data using designated tools and analyzes data to improve outcomes and identify best practices, collaborating with others as needed	X	X	X	
	6.4B	Evaluates Sustainable Food Systems QAPI processes and communicates outcomes and best practices to leadership, stakeholders, and customers		X	X	
6.5	Measures and tracks trends regarding internal and external customer outcomes (eg, satisfaction, key performance indicators)			X	X	X
	6.5A	Analyzes data related to program services and customer satisfaction; communicates results and recommendations for change	X	X	X	
	6.5B	Measures and analyzes sustainable food systems products and processes to improve outcomes and create best practices; communicates results to leadership, stakeholders, and customers		X	X	

Examples of Outcomes for Standard 6: Utilization and Management of Resources

- Resources are effectively and efficiently managed
- Documentation of resource use is consistent with operational and sustainability goals
- Data are used to promote, improve, and validate services, organization practices, and public policy
- Desired outcomes are achieved, documented, and disseminated
- Identifies and tracks key Sustainable Food System indicators in alignment with organizational mission, vision, principles, and values
- Sustainable Food Systems principles guide organization decisions and practices

^a**PROMIS:** The Patient-Reported Outcomes Measurement Information System (*PROMIS*) (<https://commonfund.nih.gov/promis/index>) is a reliable, precise measure of patient-reported health status for physical, mental, and social well-being. *PROMIS* is a web-based resource and is publicly available.

^b**Interprofessional:** The term *interprofessional* is used in this evaluation resource as a universal term. It includes a diverse group of team members, depending on the needs of the customer. Whereas the term may traditionally refer to other health professionals (eg, other RDNs, physicians, nurses, pharmacists, psychologists, social workers, and occupational and physical therapists),⁴⁸ in the context of Sustainable Food Systems it may also include researchers, educators, and practitioners from a variety of disciplines and sectors, such as food producers, agronomists, veterinarians, environmental scientists, waste management professionals, behavioral economists, community leaders, policymakers, culinary professionals, and entrepreneurs. Interprofessional collaboration could also refer to multi-, inter-, or transdisciplinary or multi-, inter-, or trans-sectoral collaboration.

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Figure 2. (continued) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.

^c**Medical staff:** *Medical staff* is composed of doctors of medicine or osteopathy in accordance with State law, including scope of practice laws, include other categories of physicians, and non-physician practitioners who are determined to be eligible for appointment by the governing body.⁴⁹

^d**Non-physician practitioner:** A *non-physician practitioner* may include a physician assistant, nurse practitioner, clinical nurse specialist, certified registered nurse anesthetist, certified nurse-midwife, clinical social worker, clinical psychologist, anesthesiologist's assistant, qualified dietitian or qualified nutrition professional. Disciplines considered for privileging by a facility's governing body and medical staff must be in accordance with state law.^{49,50} The term *privileging* is not referenced in the Centers for Medicare and Medicaid Services long-term care (LTC) regulations. With publication of the Final Rule revising the Conditions of Participation for LTC facilities effective November 2016, post-acute care settings, such as skilled and LTC facilities, may now allow a resident's attending physician the option of delegating order writing for therapeutic diets, nutrition supplements or other nutrition-related services to the qualified dietitian or clinically qualified nutrition professional, if consistent with state law, and organization policies.^{51,52}

Figure 2. (*continued*) Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy Food and Water Systems. Note: The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient/customer, family, participant, consumer, or any individual, group, or organization to which the RDN provides service.