

Standards of Professional Performance



Academy of Nutrition and Dietetics: 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

Sustainability is the ability of a system to be maintained over the long term. Resilience is the ability of a system to withstand disturbances and continue to function in a sustainable manner. Issues of sustainability and resilience apply to all aspects of nutrition and dietetics practice, can be practiced at both the program and systems level, and are broader than any one specific practice setting or individual intervention. Given an increasing need to apply principles of sustainability and resilience to nutrition and dietetics practice, as well as growing interest among the public and by Registered Dietitian Nutritionists of health issues related to food and water systems, the Hunger and Environmental Nutrition Dietetic Practice Group, with guidance from the Academy of Nutrition and Dietetics Quality Management Committee, has developed the Standards of Professional Performance as a tool for Registered Dietitian Nutritionists working in sustainable, resilient, and healthy food and water systems to assess their current skill levels and to identify areas for further professional development in this emerging 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 sustainable, resilient, and healthy food and water systems there skill levels (competent, proficient, and expert) for Registered Dietitian Nutritionists working in sustainable, resilient, and healthy food and water systems here skill levels (competent, proficient, and expert) for Registered Dietitian Nutritionists working in sustainable, resilient, and healthy food and water systems.

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Y 2050, THE WORLD POPULAtion is projected to exceed 9 billion, further stressing the capacity of global natural resources needed to supply the increasing demand for safe and healthy food and water. Given finite resources, meeting the increased needs must do so with limited opportunities to expand agricultural land and without further depleting essential inputs such as soil, water, or fossil fuels.¹ This challenge, coupled with the mounting need to provide a safe, healthy, and equitable diet for all people, has put a "sustainable food system" at the forefront of institutional and governmental policies

2212-2672/\$36.00 http://dx.doi.org/10.1016/j.jand.2013.11.011 and as a mission for many professional organizations involved with public health and the food system.²⁻⁴

As the nation's largest group of food and nutrition professionals, registered dietitian nutritionists (RDNs) play a unique and pivotal role in promoting

Approved October 2013 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: October 2018. 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, Sharon McCauley, MS, MBA, RDN, LDN, FADA, FAND, director, Quality Management, at quality@eatright.org sustainable, resilient, and healthy (SRH) food and water systems. RDNs in all areas of dietetics are increasingly being called upon to address issues of sustainability and resilience in their daily practice.⁵ In addition, some RDNs are now choosing to focus their practice specifically on ensuring access to and availability of SRH food and water

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) instead. The two credentials have identical meanings. In this document, the expert working group has chosen to use the term RDN to refer to both registered dietitians and registered dietitian nutritionists.

FROM THE ACADEMY

systems in their communities in order to improve the nutritional status and food and water security for all individuals. However, training in sustainability and resilience has only recently been incorporated into dietetics education programs.⁶ Therefore, the Hunger and Environmental Nutrition Dietetic Practice Group of the Academy of Nutrition and Dietetics (Academy), under the guidance of the Academy Quality Management Committee, has developed Standards of Professional Performance (SOPP) for Registered Dietitian Nutritionists (RDNs) in Sustainable, Resilient, and Healthy (SRH) Food and Water Systems to assist RDNs evaluate their current knowledge and identify areas for further education and experience.

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 the needs of future generations. RDNs must acknowledge that sustainability is always an emerging concept, and that, to be sustainable, one must have the ability to anticipate and successfully adapt to the changes ahead.⁸ Applying sustainability to food and water systems results in a multidimensional and adaptable approach to ensuring that food and water systems meet the needs of individuals and communities and have the capacity to adjust over time to meet the food and water needs of future generations.

As with sustainability, the term resilience can take on a variety of definitions, depending on its application. When resilience is applied to food and water systems, it is a measure of the systems' ability to survive and persist within variable or volatile environments.⁹ Therefore, resilient food and water systems have the capacity to absorb various disturbances so that all parts of the system keep functioning as they were or in an improved capacity.¹⁰ Issues of sustainability and resilience of food and water systems apply to all areas of nutrition and dietetics practice, can be incorporated at both the program and systems levels, and are broader than any one specific practice setting or individual intervention. RDNs, therefore, have the opportunity, and indeed the responsibility, to integrate SRH food and water systems principles into their respective practice areas as a means to remain relevant

and to secure, preserve, and strengthen food and water systems, now and for the future.

SRH food and water systems assure that all individuals have equitable and optimal access to food and water, both now and in the future (Figure 1). The foundation of these systems include the following principles:

- Nutrition and health. Assures dietary diversity through safe and secure food and water supplies.
- Social, cultural, and ethical capital. Promotes cultural diversity while empowering social responsibility and community engagement; advances ethical, humane, and fair treatment of individuals and animals.
- Environmental stewardship. Conserves, protects, and renews natural resources (soil, water, air, energy, biodiversity); supports vibrant ecosystems; promotes a low-carbon footprint and mitigates climate change.
- **Economic vitality.** Builds community wealth and is economically viable.

SRH food and water systems-related nutrition and dietetics practice includes policy, system, and environmental change strategies¹¹ that address the quality, quantity, safety, and accessibility of food and water and the impact on human, environmental, economic, and social health.

RDNs recognize that promoting human health requires consideration of complex inter-relationships among multiple factors, including the sustainability, resilience, and health of food and water systems. Given the multifactorial connections to food and water, RDNs who incorporate resilience and sustainability principles into practice often consider a systems approach. Instead of viewing problems as discrete events with a single solution (reductive thinking), an individual applying a systems approach would address the problem as a component within a larger context, and with the understanding that factors within levels of the system influence each other. A problem can be resolved in the short term by addressing an immediate concern, or it can be completely solved by addressing a larger underlying cause. It is important to understand the limitations of a reductionist approach and the benefits of a systems approach to promoting optimal public health.

An RDN working as part of a transdisciplinary team applying a systems approach to improving the food and water systems would consider all of the multiple implications (eg, externalities) of any one approach to resolving a problem, as well as the potential alternative approaches, before implementing a change in policy or the environment. For example, when working on Food Policy Councils to increase access to healthy foods, RDNs would consider the impacts of food deserts. Electronic Benefit Transfer availability at farmers' markets, community gardens, city planning regulations, and economic effects.

OVERVIEW OF ACADEMY QUALITY PRACTICE RESOURCES

This document aligns with and expands upon the Academy of Nutrition and Dietetics Revised 2012 SOPP for RDNs.¹² The Academy of Nutrition and Dietetics/Commission on Dietetic Registration's Code of Ethics,¹³ along with the Academy of Nutrition and Dietetics Revised 2012 Standards of Practice (SOP) in Nutrition Care and SOPP for RDs,¹² are tools within the Scope of Practice in Nutrition and Dietetics¹⁴ and Scope of Practice for the RD,¹⁵ which guide the practice and performance of RDNs in all settings.

The scope of practice in nutrition and dietetics is composed of statutory and individual components, including the Code of Ethics, and encompasses the range of roles, activities, 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.¹⁴ An RDN's statutory scope of practice may delineate the services an RDN is authorized to perform in a state where a practice act or certification exists.

The RDN's individual scope of practice is determined by education, training, credentialing, and demonstrated and documented competence to practice. Individual scope of practice in nutrition and dietetics has flexible **Sustainable, resilient, and healthy food and water systems** assure eaters have equitable and optimal access to food and water now and in the future. The foundation of these systems includes:

- Nutrition & Health. Assures dietary diversity through safe and secure food and water supplies.
- Social, Cultural & Ethical Capital. Promotes cultural diversity while empowering social responsibility and community engagement. Advances ethical, humane, and fair treatment of individuals and animals.
- Environmental Stewardship. Conserves, protects and renews natural resources (soil, water, air, energy, biodiversity); supports vibrant ecosystems; promotes a low-carbon footprint and mitigates climate change.
- Economic Vitality. Builds community wealth and are economically viable.

Environmental Stewardship

 Conserves, protects and renews natural resources (soil, water, air, energy, biodiversity)
 Supports vibrant ecosystems
 Promotes a low-carbon footprint
 Mitigates climate change

Economic Vitality

- •Builds community wealth
- Is economically viable and sustainable

Sustainable, Resilient, & Healthy Food & Water Systems

Social, Cultural & Ethical Capital

Promotes cultural diversity
Empowers social responsibility and community engagement
Advances ethical, humane and fair treatment of individuals and animals

Figure 1. Sustainable, resilient, and healthy food and water systems framework.

boundaries to capture the breadth of the individual's professional practice. The Scope of Practice Decision Tool, which is an online, interactive tool, allows an RDN to answer a series of questions to determine whether a particular activity is within his or her scope of practice. The tool is designed to assist an RDN in critically evaluating personal knowledge, skills, and demonstrated competence with criteria resources (Access Tool in the Academy

Nutrition & HealthAssures dietary

Assures safety of

food and water

Assures optimal

access to food and

water in order to meet nutritional requirements

diversity

supplies

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Term	Definition
Biodiversity	The variety of organisms considered at all levels, from genetic variants belonging to the same species through arrays of species to arrays of genera, families, and still higher taxonomic levels. This includes the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live. ²⁸
Carbon footprint	The total amount of greenhouse gases that are emitted into the atmosphere each year by a person, family, building, organization, or company. A person's carbon footprint includes greenhouse gas (GHG) emissions from fuel that an individual burns directly, such as by heating a home or riding in a car. It also includes greenhouse gases that come from producing the goods or services that the individual uses, including emissions from food-production systems, power plants that make electricity, factories that make products, and landfills where trash is sent. ²⁹
Climate change	A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and is in addition to natural climate variability observed over comparable time periods. ³⁰
Community-based food system	A food system in which everyone has financial and physical access to culturally appropriate, affordable, nutritious food that was grown and transported without degrading the natural environment, and in which the general population understands nutrition and the food system in general. ³¹
Compost	Organic material that can be used as a soil amendment or as a medium to grow plants. Mature compost is a stable material with a content called "humus," which is dark brown or black and has a soil-like, earthy smell. It is created by combining organic wastes (eg, yard trimmings, food wastes, manures) in proper ratios into piles, rows, or vessels; adding bulking agents (eg, wood chips) as necessary to accelerate the breakdown of organic materials; and allowing the finished material to fully stabilize and mature through a curing process. Mature compost includes the production of high temperatures to destroy pathogens and weed seeds that natural decomposition does not destroy. ³²
Conservation (soil, water, energy, biodiversity)	An ethic of resource use, allocation, and protection. A primary focus of conservation is on maintaining the health of the natural world, its fisheries, habitats, and biological diversity. Secondary focus is on materials conservation and energy conservation, which are seen as important to protect the natural world. ³³
Critical thinking	The intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. ³⁴
Ecosystem	The complex of a community and its environment functioning as an ecological unit in nature. ³⁵
Ecosystem services	Processes by which the environment produces resources that benefit humankind. Besides provisioning services or goods like food, wood, and other raw materials, plants, animals, fungi, and micro-organisms provide essential regulating services, such as pollination of crops, prevention of soil erosion and water purification, and a vast array of cultural services, like recreation and a sense of place. ³⁶
Energy conservation	The reduction of, or going without, a service to save energy.
Energy efficiency	Using less energy to provide the same service. For example, replacing an appliance, such as a refrigerator, with a more energy-efficient model; the new equipment provides the same service, but uses less energy. ³⁷
Energy Star program	A federal program to promote energy efficiency. Energy Star originated in 1992 as a joint program of the US Environmental Protection Agency (EPA) and the US Department of Energy. EPA uses the Energy Star label to recognize and promote the most energy-efficient products. ³⁸
Environmental Protection Agency Food Recovery Hierarchy	A model that depicts the most preferred to the least preferred dispositions for food waste. ³⁹
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Figure 3. Sustainable, resilient, and healthy food and water systems glossary.

Term	Definition
Ethical/humane treatment of animals	Refers to practices that improve the lives of farm animals. Certification programs help assure that established standards for ethical and humane treatment are followed and respond to and have the potential to drive consumer demand for kinder and more responsible farm animal practices. For example, the Certified Humane Raised and Handled label assures consumers that the food product came from facilities where the producer has met precise, objective standards for farm animal treatment from birth through slaughter. Standards pertain to adequacy of space and shelter, the application of stress-reducing handling practices, access to ample fresh water, a healthy diet of quality feed without added antibiotics or hormones, and absence of any forbidden practices. Animals are allowed to live in situations and conditions that encourage them to behave naturally in accordance with their species. ⁴⁰
Externality(ies)	Costs not included in the market price of food are called external costs. A cost or benefit not transmitted through prices that are incurred by a party who did not agree to the action causing the cost or benefit. General types of externalities associated with food include ecological effects, environmental quality, GHG emissions, animal welfare, social costs associated with labor, and public health effects. ⁴¹
Fairness	The philosophy that each person is of equal worth and should have equal opportunity to access food, clean water, living wage, safe work conditions, health care services, employment, and other societal goods.
Farm Bill	A comprehensive piece of legislation that covers most federal government policies related to agriculture in the United States. The Farm Bill is typically renewed every 5 years. The provisions of the Farm Bill are divided into "Titles"—overarching categories related to food and farming in the United States. The 2008 Farm Bill had 15 titles: commodity programs; conservation; trade; nutrition; credit; United States rural development; research; forestry; energy; horticulture; livestock; crop insurance and disaster assistance; commodity futures; trade and tax provisions; and miscellaneous. New titles can be added to the Farm Bill during the re-authorization process; the Energy title, for instance, was created in 2002. ⁴² Over 60% of the Farm Bill is allocated to nutrition programs (Title IV) including: the Supplemental Nutrition Assistance Program, The Emergency Food Assistance Program, Food Distribution Program on Indian Reservations, Commodity Supplemental Food Program, Purchase of Fresh Fruits and Vegetables for Distribution, Fresh Fruit and Vegetable Program, Healthy Food Education and School Gardening Pilot Programs, Farmers' Market Nutrition Programs, and more. ⁴³
Farm to Cafeteria/ Farm to Institution/Farm to School	An effort to connect cafeteria foodservice in schools, colleges, corporations, hospitals, and other institutions with local farms with the objective of serving healthy meals; improving student and customer nutrition; providing agriculture, health and nutrition education opportunities; and supporting local and regional farmers.
Farmers' market	A farmers' market operates multiple times per year and is organized for the purpose of facilitating personal connections that create mutual benefits for local farmers, shoppers, and communities. To fulfill that objective, farmers' markets define the term local, regularly communicate that definition to the public, and implement rules/guidelines of operation that ensure that the farmers' market consists principally of farms selling directly to the public products that the farms have produced. ⁴⁴
Food access	A food-security concept that includes availability or adequacy of supply of healthy food; accessibility or the location of the food supply and the distance to that location (can refer to a community level or within a household); affordability refers to food prices and people's perception of worth relative to the cost; acceptability or people's attitudes about attributes of their local food environment and degree that local food meets certain personally held standards; and accommodation or how well local food sources accept and adapt to local residents' needs, such as store hours and types of payments accepted. ⁴⁵
Food and water delivery systems	The mechanisms and infrastructure needed by which individuals and communities obtain food and water to meet daily living needs.
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Figure 3. (continued) Sustainable, resilient, and healthy food and water systems glossary.

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Term	Definition
Food and water security	 Global food and water security requires a comprehensive approach to address the underlying causes of hunger, undernutrition, and inaccessibility to potable water; an investment in country-led initiatives and policies; strong strategic coordination that leverage the benefits of multinational institutions; and sustained and accountable commitments that secure healthful and safe food and water supply chains. National food and water security ensures the survival of the country through the use of agricultural, economic, energy, and environmental intelligence. This includes policies, systems, and environments that value and secure national biodiversity, ecosystem preservation, agricultural sustainability, and biosecurity. Community food and water security is a state in which all community residents obtain a safe, culturally appropriate, nutritionally sound diet and clean water through an economically and environmentally sustainable food and water security ensures access by all members at all times to enough food and potable water for an active, healthy life. This includes the ready availability of nutritionally adequate and safe foods, ability to acquire acceptable foods in socially acceptable ways, and regular access to a safe and clean water supply.⁴⁶
Food gardening	The practice of growing and cultivating useful plants, such as root vegetables, leaf vegetables, fruits and herbs for consumption, medicinal, or cosmetic use.
Food hub	A centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products. Definitions vary from narrow market efficiency functions to those related to visions of building a diversified food culture. ⁴⁷
Food labeling	A variety of strategies to convey information about a food product, process, packaging or company. This can include all natural, antibiotic free, cage free, certified humane, conventionally grown, ecologically grown, shade grown, and fair trade. ⁴⁸
Food policy	Any legislative or administrative decision made by a government agency, business, or organization that effects how food is produced, processed, distributed, and purchased, or designed to influence the operation of the food and agriculture system. This includes the types of foods consumers have access to, information available pertaining to place of origin, and the rules and regulations that influence many aspects of farming. ⁴⁹
Food Policy Council	Comprised of stakeholders from various segments of a local food system. Councils are typically sanctioned through government action such as an Executive Order, Public Act, or Joint Resolution however, some Councils have formed through grass root efforts and operate without an official convening document. Food Policy Councils are innovative collaborations between citizens and government officials that give voice to the concerns and interests of many who have long been underserved or unrepresented by agricultural institutions. The primary goal of most Food Policy Councils is to examine the operation of a local food system and provide ideas and recommendations for improvement through public policy change. ⁴⁹
Food safety	A scientific discipline describing growing, handling, preparation, and storage of food in ways that prevent foodborne illness. This includes a number of routines that should be followed to avoid potentially severe health hazards. In considering industry to market practices, food safety considerations include the origins of food, such as the practices relating to food labeling, food hygiene, food additives, and pesticide residues, as well as policies on biotechnology and food and guidelines for the management of governmental import and export inspection and certification systems for foods. ⁵⁰
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Figure 3. (continued) Sustainable, resilient, and healthy food and water systems glossary.

Term	Definition
Food system	The food system includes all processes involved in keeping society fed; ie, growing, harvesting, processing, packaging, transporting, marketing, consuming, and disposing of food and food packages. It also includes the inputs needed and outputs generated at each step. The food system operates within and is influenced by social, political, economic, and natural environments. Each step is also dependent on human resources that provide labor, research, and education. ⁵¹
Food waste management hierarchy	A tool developed by the EPA to rank the most environmentally sound strategies for municipal solid waste. Source reduction (including reuse) is the most preferred method, followed by recycling and composting, energy recovery, and, lastly, treatment and disposal. ⁵²
Good Agricultural Practices (GAP)	Addresses environmental, economic, and social sustainability dimensions for on-farm production and post-production processes, resulting in safe and quality food and nonfood agricultural products. ⁵³
Health disparities	A type of difference in health that is closely linked with social or economic disadvantage. Health disparities negatively affect groups of people who have systematically experienced greater social or economic obstacles to health. These obstacles stem from characteristics historically linked to discrimination or exclusion such as race or ethnicity, religion, socioeconomic status, sex, mental health, sexual orientation, or geographic location. Other characteristics include cognitive, sensory, or physical disability. ⁵⁴
Health equity	When all people have the opportunity to attain their full health potential and no one is disadvantaged from achieving this potential because of their social position or other socially determined circumstance. ⁵⁵
Hunger	Hunger is an extreme form of food insecurity, which is the inconsistent access by an individual at all times to enough food for an active, healthy life. ⁵⁶
Natural resources	Any component of the natural environment, such as soil, water, fossil fuels, rangeland, forest, wildlife, and minerals, that species depend on for their welfare. ⁵⁷
Resilience	The capacity of a system to absorb and respond to disturbances and still retain its basic function and structure. ⁵⁸
Social capital	The fabric of a community and the community pool of human resources available. This term refers to the individual and communal time and energy that is available for such things as community improvement, social networking, civic engagement, personal recreation, and other activities that create social bonds between individuals and groups. ⁵⁹
Social determinants of health	The complex, integrated, and overlapping social structures and economic systems that are responsible for most health inequities. These social structures and economic systems include the social environment, physical environment, health services, and structural and societal factors. Social determinants of health are shaped by the distribution of money, power, and resources throughout local communities, nations, and the world. ⁶⁰
Social responsibility	A theory that an entity, be it an organization or individual, has an obligation to act to benefit society at large. Social responsibility is a duty every individual or organization has to perform so as to maintain a balance between the economy and the ecosystem. It pertains not only to business organizations but also to every person's action and the impact on the environment. This responsibility can be passive, by avoiding engaging in socially harmful acts, or active, by performing activities that directly advance social goals. ⁶¹
Soil degradation	The decline in soil quality or a reduction in its productivity and environmental regulatory capacity. Three principal processes of soil degradation are chemical (eg, salinization or nutrient depletion), physical (eg, compaction or reduction in water-holding capacity), and biological (eg, reduction in soil organic carbon or soil biodiversity). ⁶²
Soil erosion	Detachment and transportation of soil particles caused by rainfall runoff or splash, irrigation runoff, or wind that degrades soil quality. ⁶³
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Figure 3. (continued) Sustainable, resilient, and healthy food and water systems glossary.

FROM THE ACADEMY

Term	Definition
Soil quality	The capacity of a specific kind of soil to function, within natural or managed ecosystem boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation. ⁶⁴
Sustainable, resilient, and healthy food and water referral system	A network of providers and organizations concerned about the broad impact of the food and water system on individual, organizational, and community health. For example, a Registered Dietitian Nutritionist might suggest that a hospital with whom she or he works become involved with a local Food Policy Council to increase their access to and knowledge about sustainable foods in their institution; or a public health registered dietitian nutritionist leads a community food systems assessment as part of the Food Policy Council.
Sustainability	Because nature is full of emergent properties, sustainability is always an emerging concept. Sustainability is about maintaining something indefinitely into the foreseeable future. Consequently, to be sustainable we have to anticipate and successfully adapt to the changes ahead. Sustainability is a process, not a prescription. The process always requires social and ecological as well as economic dimensions. There is, therefore, no simple definition. It is a journey we embark on together, not a formula on which we agree. ⁶⁵
Sustainable	The capacity of being maintained over the long term and meeting the needs of the present without jeopardizing the ability to meet the needs of future generations. ⁶⁶
Sustainable food	Sustainable foods are produced by farmers and ranchers who care for the health of their animals and the land; sourced locally and seasonally directly from family farms or farm cooperatives; cooked from scratch to minimize processed ingredients; and good for the environment, the people who grow it, and the people who eat it. ⁶⁷
Sustainable foodservice menus	Foodservice menus that are centered on sustainably produced and procured food and beverages while meeting the nutrition needs and cultural preferences of the client base.
System	A regularly interacting or interdependent group of items forming a unified whole. An organized set of doctrines, ideas, or principles usually intended to explain the arrangement or working of a systematic whole. An organized or established procedure. A harmonious arrangement or pattern. ⁶⁸
Transparency	Transparency within food systems refers to full disclosure of information about rules, procedures, and practices at all levels within a food production and supply chain. Transparency ensures that consumers have detailed information about production of a given food item. ⁶⁹
Urban farms/ agriculture	The growing of plants and the raising of animals within and around cities. The most striking feature of urban agriculture, which distinguishes it from rural agriculture, is that it is integrated into the urban economic and ecological system. ⁷⁰
Waste management	The collection, transport, processing, or disposal, managing, and monitoring of waste materials. The term usually relates to materials produced by human activity, and the process is generally undertaken to reduce their effect on health, the environment, or aesthetics. Waste management is a distinct practice from resource recovery, which focuses on delaying the rate of consumption of natural resources. All waste materials, whether they are solid, liquid, gaseous, or radioactive, fall within the sphere of waste management. ⁷¹
Water system	A river and its tributaries. A system for supplying water (private or public water supply system). A public water system provides water to the public for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves at least 25 individuals. ⁷²

Figure 3. (continued) Sustainable, resilient, and healthy food and water systems glossary.

Shop, www.eatright.org/shop/product. aspx?id=6442474795).

The Academy's Revised 2012 SOP in Nutrition Care and SOPP for RDs¹² reflect the minimum competent level of nutrition and dietetics practice and professional performance for RDNs. These standards serve as blueprints for the development of focus area SOP and SOPP for RDNs in competent, proficient, and expert levels of practice. The SOP in Nutrition Care is composed of four standards representing the four steps of the Nutrition Care Process as applied to the care of patients/clients. The HEN DPG does not include the SOP competencies in its standards, but does recognize their importance in other focus areas that participate in direct patient and client care. The SOPP consist of standards representing six domains of professionalism. The SOPP for RDNs are designed to promote the provision of safe, effective, and efficient food and nutrition services; facilitate evidence-based practice; and serve as a professional evaluation resource.

The SOPP for RDNs in SRH Food and Water 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 addressing food and water systems issues when delivering nutrition and dietetic services. In addition, the standards can be used to assist RDNs in transitioning their knowledge and skills to a new focus on SRH food and water systems practice. Like the SOPP for RDs, the indicators (ie, measureable action statements that illustrate how each standard can be applied in practice) for the SOPP for RDNs in SRH Food and Water Systems were developed with input and consensus of content experts representing diverse practice and geographic perspectives (see Figures 1 through 6). This document is framed in the context of science and practicebased evidence: however, it is important that RDNs acknowledge and appreciate a variety of approaches and perspectives on this work. The SOPP for RDNs in SRH Food and Water Systems were reviewed and approved by the Executive Committee of the Hunger and Environmental Nutrition Dietetic Practice Group and the Academy Quality Management Committee.

THREE LEVELS OF PRACTICE

The Dreyfus model¹⁶ identifies levels of mastery (novice, advanced beginner, competent, proficient, and expert) (refer to Figure 2, available online at www.andjrnl.org) during the acquisition and development of knowledge and skills. This model is helpful in understanding the levels of practice described in the SOPP for RDNs in SRH Food and Water Systems. In Academy focus areas of practice, there are specified mastery levels: competent, proficient, and expert.

Competent Practitioner

In dietetics, a competent practitioner is an RDN who is either just starting professional practice after having obtained RDN registration by the Commission on Dietetic Registration, or an experienced RDN who has recently assumed responsibility to provide nutrition services in a new focus area. A focus area is defined as an area of nutrition and dietetics practice that requires focused knowledge, skills, and experience.¹⁷ A competent practitioner who has recently obtained RDN status acquires additional on-the-job skills and engages in tailored continuing education to further enhance the knowledge and skills obtained during formal education. All RDNs, even those with significant experience in other practice areas, begin at the competent level when entering a new focus area of practice.

Proficient Practitioner

A proficient practitioner is an RDN who generally has more than 3 years of practice experience, who has obtained operational job performance skills, and is successful in the RDN's chosen focus area of practice.¹⁷ The proficient practitioner demonstrates additional knowledge, skills, and experience in a focus area of dietetics practice. An RDN can acquire specialist credentials, if available, to demonstrate proficiency in a focus area of practice.

Expert Practitioner

An expert practitioner is an RDN who is recognized within the profession and has mastered the highest degree of skill in, or knowledge of, a certain focus or generalized area of dietetics through additional knowledge, experience, or training.¹⁷ An expert practitioner exhibits a set of characteristics that include leadership and vision and demonstrates effectiveness in planning, achieving, evaluating, and communicating targeted outcomes. An expert practitioner might have an expanded or specialist role (or both), and might possess an advanced credential, if available, in a focus area of practice. Generally, the practice is more complex and the practitioner has a high degree of professional autonomy and responsibility.

These Standards, along with the Academy and CDR's Code of Ethics,¹³ answer the following questions: Why is an RDN uniquely qualified to provide SRH food and water systems—related nutrition services? What knowledge, skills, and competencies does an RDN need to demonstrate for the provision of safe, effective, and quality SRH food and

water systems-related nutrition services at the competent, proficient and expert levels?

The SOPP for RDNs in SRH Food and Water Systems builds on many existing Academy SRH food and water systems resources, such as Healthy Land, Healthy People: Building a Better Understanding of Sustainable Food Systems for Food and Nutrition Professionals: A Primer on Sustainable Food Systems and Emerging Role,¹⁸ Academy practice papers, such as "Promoting Ecological Sustainability within the Food System,"⁵ and Academy position papers, such as "Addressing World Hunger, Malnutrition and Food Insecurity"¹⁹; "Food and Nutrition Professionals Can Implement Practices to Conserve Natural Resources and Support Ecological Sustainability"²⁰; "Food and Water Safety"²¹; "Food Insecurity in the United States"22; and "Nutrition Security in Developing Nations: Sustainable Food, Water, and Health."²³ Looking forward, the SOPP for RDNs in SRH Food and Water Systems will serve as the foundation for the development of educational activities, toolkits, and future white papers. Terms used in the SRH Food and Water Systems SOPP document are defined in Figure 3.

ACADEMY STANDARDS OF PROFESSIONAL PERFORMANCE FOR REGISTERED DIETITIAN NUTRITIONISTS (COMPETENT, PROFICIENT, AND EXPERT) IN SUSTAINABLE, RESILIENT, AND HEALTHY FOOD AND WATER SYSTEMS

An RDN can use the Academy SOPP for RDNs (Competent, Proficient, and Expert) in SRH Food and Water Systems (see the website-exclusive Figures 2, 4, and 5, available online at www.andjrnl.org) to:

- identify the competencies needed to provide SRH food and water systems services as a part of nutrition and dietetics practice;
- self-assess whether current knowledge base and skills are appropriate to provide safe and effective SRH food and water systems-related nutrition and dietetics services for level of practice;
 identify the areas in which
- identify the areas in which additional knowledge and skills

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information about sustainability and resilience of the food and water system to patient education materials where appropriate. The RDN recognizes a need for specific knowledge and skills that are not familiar. The RDN reviews the SOPP to evaluate individual skills and competencies for providing SRH food and water systems services, and sets goals to improve competency in this area of practice before beginning to add this information to the patient-education materials. Food and A manager who oversees a number of RDNs routinely consults the SRH food and water systems principles into work assignments, determining expression A manager who oversees a number of RDNs routinely consults the SRH food and water systems principles into work assignments, determining expression A manager who oversees a number of RDNs routinely consults the SRH food and water systems principles forward in their practice. The manager recognizes the SOPP is an important tool for staff to use to assess their own SRH food and water systems SOPP is used to evaluate current practices in sourcing of food, paper and cleaning supplies, small and large equipment, and othe best SRH food and water systems into foodservice operations. Private An RDN working with clients of a nutrition-assistance program notices an increase in the number of client who are unable to use their obal water systems SOPP is used to practice competention, and avaiter systems into foodservice operation. Private An RDN working with clients of a nutrition-assistance program notices an increase in the number of client who are unable to use their local water systems SOPP is used t	Role	Examples of use of SOPP documents by RDNs in different practice roles
nutrition guidance in incorporating SRH food and water systems principles into work assignments, determining services nanager expertise needed at the program level, evaluating individual staff members' needs for additional knowledge and skills to move SRH food and water systems principles forward in their practice. The manager recognizes the SOPP is an important tool for staff to use to assess their own SRH food and water systems: competencies and to use as the basis for strategic planning and for identifying personal performance plans. Culinary An RDN working in a culinary or foodservice capacity wishes to elevate their culinary offerings and mode best SRH food and water systems practices. The SRH food and water systems SOPP is used to evaluate current practices in sourcing of food, paper and cleaning supplies, small and large equipment, and othe items, meal planning, staffing and vendor practices, resource use and waste disposal, promotion practices and assessing adequacy of tracking and evaluation to determine return on investment (ROI) of implementing SRH food and water systems into foodservice operations. Private An RDN in private practice decides to focus on SRH food and water systems-related nutrition consulting. Before accepting clients, the RDN uses the SOPP as an evaluation too to determine what is needed to practice competently to provide quality SRH food and water systems related nutrition and dietetics services. Public health An RDN working with dients of a nutrition-assistance program notices an increase in the number of client who are unable to use their local water supply for food preparation due to contamination. The RDN wast to become more active in advocating for clients or bart level of SRH food and water systems promotion apportunitites. It can also ide		environmentally friendly practices as part of their annual goals and objectives. The RDN decides to add information about sustainability and resilience of the food and water system to patient education materials where appropriate. The RDN recognizes a need for specific knowledge and skills that are not familiar. The RDN reviews the SOPP to evaluate individual skills and competencies for providing SRH food and water systems services, and sets goals to improve competency in this area of practice before
professionalbest SRH food and water systems practices. The SRH food and water systems SOPP is used to evaluate current practices in sourcing of food, paper and cleaning supplies, small and large equipment, and othe titems, meal planning, staffing and vendor practices, resource use and waste disposal, promotion practices and assessing adequacy of tracking and evaluation to determine return on investment (ROI) of implementing SRH food and water systems into foodservice operations.Private practitionerAn RDN in private practice decides to focus on SRH food and water systems-related nutrition consulting. Before accepting clients, the RDN uses the SOPP as an evaluation tool to determine what is needed to practice competently to provide quality SRH food and water systems-related nutrition and dietetics services.Public health practitionerAn RDN working with clients of a nutrition-assistance program notices an increase in the number of client who are unable to use their local water supply for food preparation due to contamination. The RDN was to become more active in advocating for changes in local regulations to protect the water systems sole of the local water supply.Retail RDNAn RDN working with a major supermarket chain wishes to create programs and consumer educational materials that will elevate their chain's presence and credibility concerning SRH food and water system 	nutrition services	expertise needed at the program level, evaluating individual staff members' needs for additional knowledge and skills to move SRH food and water systems principles forward in their practice. The manager recognizes the SOPP is an important tool for staff to use to assess their own SRH food and water systems competencies and to use as the basis for strategic planning and for identifying personal
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practitionerwho are unable to use their local water supply for food preparation due to contamination. The RDN want to become more active in advocating for changes in local regulations to protect the water supply for he clients. The RDN uses the SOPP to evaluate his or her level of SRH food and water systems expertise, and identify areas for further education in order to most effectively advocate for policy changes to protect the safety of the local water supply.Retail RDNAn RDN working with a major supermarket chain wishes to create programs and consumer educational materials that will elevate their chain's presence and credibility concerning SRH food and water system practices within the retail marketplace. The SRH food and water systems SOPP is used to help identify those practices that would ensure the integrity of current purchasing practices and create criteria for vendor partnerships around which to create SRH food and water systems promotional opportunities. It can also identify areas that the RDN may wish to research to create educational programs, materials, and handouts to both educate supermarket staff and consumers.ResearcherAn RDN working in a research setting is awarded a grant to demonstrate the impact of SRH food and water systems—related nutrition services provided by RDs on health outcomes in a community. The RDN uses the SOPP to design the research protocol.Communications professionalAn RDN working with media or public relations wishes to position himself or herself as an expert in health issues related to SRH food and water systems and to identify resources and further research that wil elevate confidence when speaking or writing about SRH food and water systems issues.Educator of dieteticsAn educator designing continuing education materials for RDNs uses the SOPP to develop educational materia		Before accepting clients, the RDN uses the SOPP as an evaluation tool to determine what is needed to practice
materials that will elevate their chain's presence and credibility concerning SRH food and water system practices within the retail marketplace. The SRH food and water systems SOPP is used to help identify those practices that would ensure the integrity of current purchasing practices and create criteria for vendor partnerships around which to create SRH food and water systems promotional opportunities. It can also identify areas that the RDN may wish to research to create educational programs, materials, and handouts to both educate supermarket staff and consumers.ResearcherAn RDN working in a research setting is awarded a grant to demonstrate the impact of SRH food and water systems—related nutrition services provided by RDs on health outcomes in a community. The RDN uses the SOPP to design the research protocol.Communications professionalAn RDN working with media or public relations wishes to position himself or herself as an expert in health issues related to SRH food and water systems. The SRH food and water systems SOPP is used to assess SRH food and water systems knowledge and skill areas and to identify resources and further research that will elevate confidence when speaking or writing about SRH food and water systems issues.Educator of dieteticsAn educator designing continuing education materials for RDNs uses the SOPP to develop educational materials to help competent RDNs develop proficient-level SRH food and water systems skills.		An RDN working with clients of a nutrition-assistance program notices an increase in the number of clients who are unable to use their local water supply for food preparation due to contamination. The RDN wants to become more active in advocating for changes in local regulations to protect the water supply for her clients. The RDN uses the SOPP to evaluate his or her level of SRH food and water systems expertise, and identify areas for further education in order to most effectively advocate for policy changes to protect the safety of the local water supply.
systems—related nutrition services provided by RDs on health outcomes in a community. The RDN uses the SOPP to design the research protocol.Communications professionalAn RDN working with media or public relations wishes to position himself or herself as an expert in health issues related to SRH food and water systems. The SRH food and water systems SOPP is used to assess SRH food and water systems knowledge and skill areas and to identify resources and further research that will elevate confidence when speaking or writing about SRH food and water systems issues.Educator of dieteticsAn educator designing continuing education materials for RDNs uses the SOPP to develop educational materials to help competent RDNs develop proficient-level SRH food and water systems skills.	Retail RDN	those practices that would ensure the integrity of current purchasing practices and create criteria for vendor partnerships around which to create SRH food and water systems promotional opportunities. It can also identify areas that the RDN may wish to research to create educational programs, materials, and
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dietetics materials to help competent RDNs develop proficient-level SRH food and water systems skills.		An RDN working with media or public relations wishes to position himself or herself as an expert in health issues related to SRH food and water systems. The SRH food and water systems SOPP is used to assess SRH food and water systems knowledge and skill areas and to identify resources and further research that will elevate confidence when speaking or writing about SRH food and water systems issues.

Figure 6. Case Examples of Standards of Professional Performance (SOPP) for Registered Dietitian Nutritionists (RDNs) (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy (SRH) Food and Water Systems.

Role	Examples of use of SOPP documents by RDNs in different practice roles
Dietetic program director	A dietetic program director is working to strengthen the abilities of future RDNs to practice and promote SRH food and water systems principles. The SOPP is used as a guide for incorporating SRH food and water systems competencies into the curriculum. The indicators and examples assist in the integration of these principles into coursework and supervised practice across all areas of dietetics practice.
RDN as a member of an administrative committee	A health care organization decides to participate in the Health Care Without Harm (http://www.noharm. org/) campaign. The RDN uses the SOPP for the RDN in SRH food and water systems as an evaluation tool to demonstrate that the health care organization uses a continuous quality-improvement approach to continuing competence of the RDN providing SRH food and water systems–related services.

Figure 6. (continued) Case Examples of Standards of Professional Performance (SOPP) for Registered Dietitian Nutritionists (RDNs) (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy (SRH) Food and Water Systems.

are needed to practice at the competent, proficient, or expert level of SRH food and water systems—related nutrition and dietetics practice;

- provide a foundation for public and professional accountability in SRH food and water systems related nutrition and dietetics practice;
- support efforts for strategic planning and/or assist management in the planning of SRH food and water systems—related nutrition and dietetics services and resources;
- enhance professional identity and communicate the nature of SRH food and water systems related nutrition and dietetics services;
- guide the development of SRH food and water systems-related nutrition and nutrition and dietetics client counseling, continuing education programs, job descriptions, and career pathways;
- assist educators and preceptors in teaching students and interns the knowledge, skills, and competencies needed to promote SRH food and water systems related principles throughout all areas of practice; and
- position and prepare RDNs to create a new practice area and unique niche within SRH food and water systems.

APPLICATION TO PRACTICE

At the competent level, an RDN in SRH food and water systems—related practice is learning the principles of sustainability and resilience as they relate to healthy food and water systems, and is developing skills for integrating food and water systems sustainability and resilience into all dietetics practice decisions. This RDN, who might be an experienced RDN or new to the profession, has a breadth of knowledge in nutrition and dietetics overall and might have proficient or expert knowledge/practice in another focus area. However, the RDN new to SRH food and water systems might experience a steep learning curve when becoming familiar with the body of knowledge and available resources to support SRH food and water systemsrelated dietetics practice.

At the proficient level, an RDN has developed a deeper understanding of SRH food and water systems—related practice, and is better equipped to apply evidence-based SRH food and water systems guidelines and best practices. This RDN is also able to modify SRH food and water systems practice according to unique practice situations, for example, tailoring their intervention to the food and water systems in their geographic area, environmental conditions, accessibility of food and water systems services, and readiness of clients for change.

At the expert level, the RDN demonstrates a more intuitive understanding of how issues of food and water systems sustainability and resilience can be integrated into nutrition and dietetics practice, has developed a high level of knowledge and technical skills related to the sustainability and resilience of food and water systems, has developed an extensive network of colleagues and resources to implement food and water systems sustainability and resilience, and formulates judgments acquired through a combination of education, experience, and critical

thinking. Essentially, practice at the expert level requires the application of composite nutrition and dietetics knowledge. Expert RDNs, with their extensive experience and ability to see the significance and meaning of SRH food and water systems-related nutrition and dietetics practice within a contextual whole, are fluid and flexible and, to some degree, autonomous in practice. They not only implement SRH food and water systems-related nutrition and dietetics practice, they also manage, drive, and direct nutrition and dietetics practice; conduct and collaborate on research; assume leadership roles in scholarly work; guide multidisciplinary teams; and lead the advancement of SRH food and water systems-related nutrition and dietetics practice.

One of the key traits of RDNs who have developed expert skills in food and water systems is an ability to apply not only a systems framework, but also a transdisciplinary approach and collaboration among professionals with a diverse set of training and expertise in order to achieve goals and objectives.²⁴ The nutrition, health, and consumer-focused experience and skill set of the RDN uniquely positions the RDN to be a valuable member of any transdisciplinary team. While an RDN might not have the specific content expertise of other food and water systems colleagues (eg, agronomists, economists, environmental scientists, public policy analysts), the expert-level RDN in food and water systems will be conversant in the broad terminology of these other fields, and will appreciate when it is important to consult these other colleagues.

Indicators for the SOPP (Figure 4, available online at www.andjrnl.org)

for RDNs in SRH Food and Water Systems are measurable action statements that illustrate how each standard can be applied in practice.

Standards and indicators presented in boldface type originate from the Academy's Revised 2012 SOPP for RDs,¹² and should apply to RDNs at all three levels. Indicators developed specifically for their relevance to SRH food and water systems-related dietetics practice are in plain (not boldface) type. Indicators for which there is an "X" in all three levels of practice, are those that all RDNs working to integrate SRH food and water systems principles are accountable for in their practice. 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 SRH Food and Water Systems is warranted. The totality of individual practice defines the overall level of practice rather than any one indicator or standard.

Knowledge and best practices in SRH food and water systems are constantly evolving, and RDNs should review the SOPP for RDNs in SRH Food and Water Systems at regular intervals to evaluate their competence in this area. Regular self-evaluation will help the RDN identify opportunities to improve and enhance practice and professional performance. This self-appraisal also enables RDNs in SRH food and water systems-related practice to better utilize these Standards in the Commission on Dietetic Registration's Professional Development Portfolio process and each of its five steps for self-assessment, planning, improvement, and commitment to lifelong learning²⁵ (see Figure 5, available online at www. and jrnl.org). RDNs are encouraged to pursue additional training, regardless of practice setting, to remain current and to expand individual scope of practice within the limitations of the statutory scope of practice, as defined by state law. RDNs are expected to practice only at the level at which they are skilled, and this will vary depending on education, training, and experience.²⁶ See Figure 6 for case examples of how RDNs in different roles and levels of practice can use the SOPP for RDNs in SRH Food and Water Systems.

In some instances, components of the SOPP for RDNs in SRH Food and Water Systems do not specifically differentiate between proficient- and expert-level practice. In these areas, it was the consensus of content experts that the distinctions are subtle and are 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.²⁷ A wealth of knowledge is embedded in the experience, discernment, and practice of expert-level RDN practitioners. The knowledge and skills acquired through practice will continually expand and mature. The indicators will be refined as expert-level RDNs systematically record and document their experience using the concept of practice exemplars. Practice exemplars include a brief description of the need for action and the process used to change the outcome. The experienced practitioner observes events, analyzes them to make new connections between events and ideas, and produces a synthesized whole. Practice exemplars provide outstanding models of the actions of individual RDNs in SRH food and water systems-related practice and the professional activities that have enhanced customer services.

FUTURE DIRECTIONS

The SOPP for RDNs in SRH Food and Water Systems are innovative and dynamic documents. The Hunger and Environmental Nutrition Dietetics Practice Group will work to educate Academy members on how to implement and augment the SOPP in practice and make resources available at http:// www.hendpg.org/page/professionaldevelopment. Future revisions to the SOPP will reflect ongoing accumulation of evidence related to SRH food and water systems, changes and advances in practice, dietetics education programs, and outcomes of practice audits. The authors acknowledge that the three practice levels require more clarity and differentiation in content and role delineation, and that competency statements that better characterize differences among the practice levels are needed. Creation of this clarity, differentiation, and definition are the challenges of today's RDNs in SRH food and water systems-related practice to better serve tomorrow's practitioners and their customers, patients/clients, and community.

Just as self-evaluation and continuing education is ongoing, standards are a work in progress and will be reviewed and updated every 5 years. The authors envision that future revisions to the SOPP for RDNs in SRH Food and Water Systems will reflect greater integration of food and water systems issues into nutrition and dietetics education, practice, and continuing professional education opportunities. New levels of insight into the ways that nutrition and dietetics practice can positively impact the human, environmental, social, and economic health of food and water systems will be evident. RDNs will be leading innovative initiatives that advance sustainable, resilient, and healthy food and water systems at local, regional, state, federal, and international levels. These initiatives will include a commitment to food and water systems research and contributions to scientific literature. Ultimately, these Standards will expand the efforts of all RDNs in making positive impacts on ensuring that all individuals have equitable and optimal access to food and water, both now and in the future.

CONCLUSIONS

RDNs practice in complex and dynamic environments every day. Addressing the unique needs of each practice context and applying standards appropriately is essential to providing ethical, safe, timely, and high-quality care and service. All RDNs are advised to conduct their practice based on the most recent edition of the Code of Ethics, the Scope of Practice in Nutrition and Dietetics, the Scope of Practice for RDs, and the SOP in Nutrition Care and SOPP for RDs. The SOPP for RDNs in SRH Food and Water Systems is a key resource for RDNs at all knowledge and performance levels, and in all areas of nutrition and dietetic practice. These standards can and should be used by RDNs in daily practice to consistently improve and appropriately demonstrate competency and value as providers of nutrition and dietetics services. These standards also serve as a professional resource for self-evaluation and professional development for RDNs

These standards have been formulated to be used for individual self-evaluation and the development of practice guidelines, but not for institutional credentialing or for adverse or exclusionary decisions regarding privileging, employment opportunities or benefits, disciplinary actions, or determinations of negligence or misconduct. These standards do not constitute medical or other professional advice, and should not be taken as such. The information presented in these standards is not a substitute for the exercise of professional judgment by the nutrition and dietetics practitioner. 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.

specializing in SRH food and water systems-related practice. Current and future initiatives of the Academy as well as advances in the field of SRH food and water systems will provide information to use in these updates and in further clarifying and documenting the specific roles and responsibilities of RDNs at each level of practice-competent, proficient, and expert. As a quality initiative of the Academy and the Hunger and Environmental Nutrition Dietetic Practice Group, these standards represent an application of continuous quality improvement and represent an important collaborative endeavor.

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The Standards of Professional Performance for RDNs in Sustainable, Resilient, and Healthy (SRH) Food and Water 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 (six separate standards).

The Standards of Professional Performance along with the Standards of Practice (SOP) in Nutrition Care, applicable to practitioners who provide direct patient/client nutrition care services, are complementary sets of standards—both serve to describe the practice and professional performance of RDNs. 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 his or her knowledge, skill, and competence with the criteria necessary to perform the activity safely, ethically, legally, and appropriately. The Academy's Scope of Practice Decision Tool, which is an online, interactive tool, is specifically designed to assist practitioners with this process.

The term customer is used in this evaluation resource as a universal term. Customer could also mean client/patient, customer, participant, consumer, or any individual or group who receives SRH food and water system-related nutrition and dietetics services. These services are provided to individuals of all ages. These Standards of Professional Performance are not limited to the clinical setting. In addition, it is recognized that the family and caregiver(s) of individuals of all ages, including individuals with special health care needs, play critical roles in overall health and are important members of the team throughout the assessment and intervention process. The term appropriate is used in the standards to mean: selecting from a range of best practice 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 2012 Standards of Professional Performance for RDs have been adapted to reflect three levels of practice (competent, proficient, and expert) for RDNs in SRH food and water systems (see illustration below). In addition, the core indicators have been expanded to reflect the unique competence expectations for the RDN providing SRH food and water system-related services.



Adapted from the *Dietetics Career Development Guide*. For more information, please visit www.eatright.org/futurepractice **Figure 2.** Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Sustainable, Resilient, and Healthy Food and Water Systems.

Standard 1: Quality in Practice

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

Rationale:

Quality practice in nutrition and dietetics is built on a solid foundation of education, 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.

Bold f		ators are Academy Core RDN Standards of Professional Performance	-	ifies the indicated of practic	
Each I	RDN:		Competent	Proficient	Expert
1.1	Compli of prac	ies with applicable laws and regulations as related to his/her area(s) tice	Х	х	х
	1.1A	Follows laws and regulations governing food and water systems at the consumer level (eg, dietary guidelines, safe food handling, labeling laws)	х	Х	Х
	1.1B	Identifies and complies with appropriate laws and regulations governing food and water availability and use at the community level (eg, agricultural production practices, hazard analysis and critical control points, zoning ordinances, environmental regulations)		х	Х
	1.1C	Provides training and technical assistance on local, state, and federal laws and regulations regarding SRH food and water systems			Х
1.2	Perform	ns within individual and statutory scope of practice	Х	Х	Х
	1.2A	Identifies opportunities to incorporate SRH food and water systems principles into practice	Х	х	Х
	1.2B	Incorporates current science, best practices, and critical thinking regarding SRH food and water systems into practice		х	Х
	1.2C	Integrates SRH food and water systems activities into employee position descriptions and performance evaluations		х	Х
1.3	Adhere	es to sound and ethical business practices applicable to the setting	х	х	х
	1.3A	Promotes practices that are consistent with customer socioeconomic status	Х	Х	Х
	1.3B	Demonstrates ethical and responsible practices that consider human, environmental, social, and economic resources	Х	х	Х
	1.3C	Encourages practices that support sustainable living wages, appropriate benefits, and safe working conditions for employees		Х	Х

Bold indica		ators are	Academy Core RDN Standards of Professional Performance	The "X" signifies the indicate the level of practice		
Each	RDN:			Competent	Proficient	Expert
	1.3D	Unders vendor:	tands implications of prices paid and payment terms for		х	Х
		1.3D1	Aims to procure food, beverages, and services that are produced, processed, and delivered using fair, equitable, and ethical practices		Х	Х
		1.3D2	Negotiates a fair and competitive price and payment terms with vendors (eg, farmer, local food distributor, or composter)			Х
1.4	Nation	al Quality	I national quality and safety data (eg, Institute of Medicine, Forum, Institute for Healthcare Improvement) to improve rvices provided and to enhance customer-centered service	х	х	х
	1.4A	waste n US Dep [FDA], I	es with production, processing, marketing, procurement, and nanagement standards (eg, Good Agricultural Practices [GAP], artment of Agriculture [USDA], Food and Drug Administration Environmental Protection Agency [EPA], Energy Star) that to SRH food and water systems	Х	Х	Х
	1.4B	waste r	es production, processing, marketing, procurement, and nanagement standards (eg, GAP, USDA, FDA, EPA, Energy at support SRH food and water systems		Х	Х
	1.4C	waste r	os production, processing, marketing, procurement, and nanagement standards (eg, GAP, USDA, FDA, EPA, Energy at support SRH food and water systems			Х
1.5	practic	-	natic performance improvement model that is based on dge, evidence, research, and science for delivery of the services	x	Х	Х
	1.5A		rates SRH food and water systems principles into daily s operations		Х	Х
	1.5B	-	tes SRH food and water systems principles into strategic g and continuous performance improvement processes			Х
1.6	evalua	Participates in or designs an outcomes-based management system to evaluate safety, effectiveness, and efficiency of practice with consideration for SRH food and water systems			х	х
	1.6A		s colleagues and others, as applicable, in systematic nes management	х	х	х
		1.6A1	Solicits SRH food and water systems ideas for feasibility of implementation		Х	Х

Bold indica		ators are a	Academy	Core RDN Standards of Professional Performance	-	fies the indicated of practice	
Each	RDN:				Competent	Proficient	Expert
		1.6A2	systems identific	ges participation in internal SRH food and water performance improvement initiatives (eg, ation of performance indicators, data collection s, and analysis)			Х
		1.6A3		incentives for meeting or exceeding SRH food er systems performance improvement indicators			Х
		1.6A4	-	an outcome-based management systems related ood and water systems			Х
	1.6B		ely (S.M.A	nat are specific, measurable, attainable, realistic, .R.T.) and integrates SRH food and water systems	х	Х	Х
		1.6B1	•	alitative and quantitative SRH food and water data to analyze, monitor, and improve ance	х	Х	Х
		1.6B2	-	s data collection tools to measure SRH food and stems performance improvement		х	Х
		1.6B3		S.M.A.R.T. performance improvement goals that SRH food and water systems practice			Х
	1.6C	Defines	expected	outcomes	Х	Х	Х
	1.6D	Measur	es quality	of services in terms of process and outcome	Х	Х	Х
		1.6D1		s SRH food and water systems performance ment audits		Х	Х
			1.6D1i	Audits customer records for meeting SRH food and water systems performance improvement outcomes		Х	х
	1.6E	Docum	ents outco	omes	Х	Х	Х
		1.6E1	-	s SRH food and water systems performance ment outcomes			Х
1.7		ies and ac ion of serv	-	otential and actual errors and hazards in	Х	х	Х
1.8	SWOT		, Weakne	nce to performance goals (eg, Gap Analysis, sses, Opportunities, and Threats] analysis, PDCA	х	Х	х
	1.8A	Reports perform		ments action plans to address identified gaps in	х	х	х
	1.8B	Integrat	es SRH fo	od and water systems goals into action plans		Х	Х

Indica	Indicators for Standard 1: Quality in Practice								
Bold f indica		ators are Academy Core RDN Standards of Professional Performance	-	The "X" signifies the indicators for the level of practice					
Each F	RDN:		Competent	Proficient	Expert				
1.9	Evaluat and se	es interventions to improve SRH food and water systems processes vices	Х	х	х				
1.10	Improv	es or enhances services based on measured outcomes	Х	Х	х				
	1.10A	Collects customer outcomes and feedback to identify needs for SRH food and water systems improvements	Х	х	х				
	1.10B	Directs performance improvement efforts to ensure achievement of SRH food and water systems outcomes, standards, and best practices			Х				

Examples of Outcomes for Standard 1: Quality in Practice

- Practice decisions account for SRH food and water systems principles and outcomes
- Practice incorporates a systems approach to food, nutrition and health, and practice
- Practice is enhanced through interdisciplinary collaborations
- SRH food and water systems actions are within scope of practice and applicable laws and regulations
- Use of SRH food and water systems practices are evident in customer-centered services
- Performance indicators support SRH food and water systems and are specific, measurable, attainable, realistic, and timely (S.M.A.R.T.)
- Aggregate SRH food and water systems outcomes results meet pre-established criteria
- Results of quality-improvement activities direct refinement and advancement of SRH food and water systems practice
- Concepts of social determinants of health, health disparities, and health equity are integrated into SRH food and water systems practices

Standard 2: Competence and Accountability

The registered dietitian nutritionist (RDN) demonstrates competence in and accepts accountability and responsibility for ensuring safety and quality in the services provided.

Rationale:

Competence and accountability in practice includes continuous acquisition of knowledge, skills, and experience in the provision of safe, quality customer-centered service.

Indica	Indicators for Standard 2: Competence and Accountability							
	Bold Font Indicators are Academy Core RDN Standards of Professional Performance The "X" signifies the indicators for the level of practice							
Each	RDN:			Competent	Proficient	Expert		
2.1	Adhere	es to the A	Academy Code of Ethics	Х	Х	х		
	2.1A	Disclos	es conflicts of interest	Х	Х	х		
		2.1A1	Supports transparency within food and water systems (eg, easy access to food and water systems processes, marketing, research, funding, laws, rules)	х	Х	х		
	(continued on next page)							

Bold I Indica		ators are Academy Core RDN Standards of Professional Performance	-	ifies the indic evel of practic	
Each I	RDN:		Competent	Proficient	Expert
2.2	-	ates the Standards of Professional Performance (SOPP) in SRH Food ater Systems into practice, self-assessment, and professional pment	Х	Х	Х
	2.2A	Develops performance criteria and quality assurance measures based on SOPP in SRH food and water systems to evaluate and assure competent practice			Х
2.3		nstrates and documents SRH food and water systems competence in e and delivery of customer-centered service	Х	х	х
	2.3A	Gathers customer feedback and satisfaction data regarding services that integrate SRH food and water systems principles	Х	Х	Х
	2.3B	Develops policies, procedures, and professional performance strategies using the SOPP in SRH food and water systems		Х	Х
	2.3C	Adapts practices and policies that integrate SRH food and water systems principles based on customer feedback		Х	Х
	2.3D	Creates internal policies that support SRH food and water systems principles within practice and services			Х
2.4	Assum	es accountability and responsibility for actions and behaviors	Х	Х	Х
	2.4A	Maintains ethical and professional integrity when integrating SRH food and water systems principles into practice (eg, follows dietetic credentialing and/or licensure protocol, organizational policies, performance standards)	х	x	Х
	2.4B	Acknowledges and corrects errors	Х	Х	Х
2.5	Condu	cts self-assessment at regular intervals	Х	Х	х
	2.5A	Identifies professional development needs in SRH food and water systems	Х	х	х
2.6	-	s and implements plans for professional development in SRH food ater systems	Х	х	х
	2.6A	Establishes professional goals that integrate SRH food and water systems principles into practice	Х	х	Х
	2.6B	Uses SOPP in SRH food and water systems to guide professional development plans	Х	Х	Х
	2.6C	Documents professional development activities in SRH food and water systems in career portfolio	Х	x	Х
	2.6D	Documents professional development activities in SRH food and water systems as per organization guidelines	Х	x	х
	2.6E	Identifies continuing education opportunities in SRH food and water systems	Х	Х	Х

22 22 22 22 2.8 P 22 2.9 N 22 2.9 N 22 2.9 2	Engage 2.7A 2.7B 2.7C 2.7D	es in evidence-based practice and utilizes best practices Critically analyzes and incorporates SRH food and water systems best practices and evidence-based research from multiple disciplines into decision making Participates in committees, councils or task forces that shape evidence- based practice and/or best practices in SRH food and water systems Presents SRH food and water systems topics at professional workshops, conferences, and meetings Develops, directs, and manages SRH food and water systems professional workshops, conferences, and meetings pates in peer review of self and others	Competent X	Proficient X X X X X	Expert X X X X X
22 22 22 22 2.8 P 22 2.9 N 22 2.9 N 22 2.9 2	2.7A 2.7B 2.7C 2.7D Particip	Critically analyzes and incorporates SRH food and water systems best practices and evidence-based research from multiple disciplines into decision making Participates in committees, councils or task forces that shape evidence- based practice and/or best practices in SRH food and water systems Presents SRH food and water systems topics at professional workshops, conferences, and meetings Develops, directs, and manages SRH food and water systems professional workshops, conferences, and meetings		x x	X X X
22 22 2.8 P 22 2.8 P 22 2.9 N 22 2.9 N 22 2.9 2	2.7B 2.7C 2.7D Particip	 practices and evidence-based research from multiple disciplines into decision making Participates in committees, councils or task forces that shape evidence-based practice and/or best practices in SRH food and water systems Presents SRH food and water systems topics at professional workshops, conferences, and meetings Develops, directs, and manages SRH food and water systems professional workshops, conferences, and meetings 		Х	x
2.8 P 2.8 P 2 2.9 N 2 2.9 N 2 2.9 2	2.7C 2.7D Particip	 based practice and/or best practices in SRH food and water systems Presents SRH food and water systems topics at professional workshops, conferences, and meetings Develops, directs, and manages SRH food and water systems professional workshops, conferences, and meetings 			Х
2.8 P 2.8 2 2 2.9 N 2 2 2.9 2 2	2.7D Particip	workshops, conferences, and meetings Develops, directs, and manages SRH food and water systems professional workshops, conferences, and meetings		Х	
2.8 P 2 2 2 2.9 N 2 2 2 2 2	Particip	professional workshops, conferences, and meetings			Х
2 2 2.9 N 2 2 2		pates in peer review of self and others			
2 2.9 N 2 2	2.8A		Х	Х	Х
2.9 N 2 2		Incorporates SRH food and water systems criteria into performance goals and evaluations of self and others		Х	Х
2	2.8B	Serves on review boards for SRH food and water systems organizations			Х
2	Mentor	rs others in SRH food and water systems	Х	Х	Х
	2.9A	Mentors students, interns, or RDNs in SRH food and water systems		Х	Х
2	2.9B	Serves as a preceptor for students, interns, or RDNs and integrates SRH food and water systems competencies into education competencies		Х	Х
	2.9C	Provides multidisciplinary education and experiential learning opportunities in SRH food and water systems		Х	Х
2	2.9D	Collaborates with colleges, universities, and other organizations in developing SRH food and water systems curricula			Х
f	food a	s opportunities (education, training, credentials) to advance SRH nd water systems practice in accordance with laws and regulations quirements of practice setting	х	Х	Х
2	2.10A	Volunteers in efforts that promote SRH food and water systems	Х	Х	Х
2	2.10B	Seeks SRH food and water systems leadership opportunities at regional, national, and/or international levels		х	Х
2	2.10C	Expands approaches to integrating SRH food and water systems principles into practice and contributes to professional development opportunities			Х

Examples of Outcomes for Standard 2: Competence and Accountability

- Commission on Dietetic Registration recertification requirements are met
- Practice reflects the Code of Ethics
- Practice reflects the Standards of Practice and Standards of Professional Performance
- Practice reflects best available/evidence-based practice
- Competence is demonstrated and documented regularly
- Safe, quality customer-centered service is provided
- Self-assessments are conducted regularly to reflect commitment to lifelong learning and self-development
- Professional development needs related to SRH food and water systems are identified
- Relevant opportunities (education, training, credentials, certifications) within SRH food and water systems are pursued to advance practice

Standard 3: Provision of Services

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

Rationale:

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

	Font Inc	licators ar	e Academy Core RDN Standards of Professional Performance	e The "X" signifies the indicato the level of practice			
Each	RDN:			Competent	Proficient	Exper	
3.1	servic	es that in	or leads in development and maintenance of programs/ tegrate SRH food and water systems principles and address stomer or target population(s)	х	Х	х	
	3.1A	custom	the needs, expectations, and desired outcomes of the er (eg, patient/client, administrator, stakeholder, client ation[s]) in program/service development	x	Х	х	
		3.1A1	Develops short- and long-term goals for SRH food and water systems services	Х	х	Х	
		3.1A2	Determines priorities, gaps, and opportunities for integrating SRH food and water systems principles into services		Х	Х	
	3.1B	systems	Plans programs and services that integrate SRH food and water systems principles and are customer-centered, culturally appropriate, and minimize health disparities		Х	х	
		3.1B1	Promotes programs and services that are aligned with evidence-based practice guidelines	Х	х	Х	
		3.1B2	Aligns SRH food and water systems program/service development with the mission, vision, and service expectations and outputs of the organization/business	х	х	х	

	Font Inc ators	licators a	re Academy Core RDN Standards of Professional Performance	The "X" signifies the indicato the level of practice		
Each	RDN:			Competent	Proficient	Expert
		3.1B3	Promotes programs and services that integrate SRH food and water systems principles to organizational stakeholders and community partners		Х	Х
		3.1B4	Identifies policy, system, and environmental (built and natural) interventions that advance SRH food and water systems			Х
		3.1B5	Incorporates the social ecological model or Spectrum of Prevention into planning programs and services that support SRH food and water systems principles			Х
		3.1B6	Identifies conflict-free resources to support programs and services that integrate SRH food and water systems principles			х
	3.1C	-	es programs and services that integrate SRH food and water s principles		х	Х
	3.1D		es programs and services that integrate SRH food and water s principles and applies quality-improvement strategies			Х
3.2			c access and referral to credentialed dietetics practitioners for d nutrition programs and services	х	х	Х
	3.2A	qualifie	outes to or designs referral systems that promote access to ed, credentialed dietetics practitioners with expertise in SRH nd water systems	х	х	х
		3.2A1	Joins networks ^a that include SRH food and water systems professionals (eg, farmers, planners, processors, economic developers, distributors, retailers, commercial waste haulers)	х	Х	Х
		3.2A2	Remains current on programs, policies and services that impact SRH food and water systems at organizational, local, state and federal levels		Х	Х
		3.2A3	Advocates for increased access to programs, policies, and services that support SRH food and water systems		х	Х
		3.2A4	Establishes and/or facilitates networks that include credentialed nutrition and dietetics practitioners and other disciplines who promote SRH food and water systems			Х
		3.2A5	Develops community strategic plans that support referrals to SRH food and water systems programs and services			Х
	3.2B	experti	customers to appropriate networks and providers with se in SRH food and water systems when requested services or ed needs exceed the RDN's individual scope of practice	Х	х	Х

	Font Inc	licators a	re Academy Core RDN Standards of Professional Performance	-	ifies the indic vel of practic	
Each	RDN:			Competent	Proficient	Expert
	3.2C		rs effectiveness of referral systems and modifies as needed to e desirable outcomes	х	х	Х
		3.2C1	Evaluates and documents impact of referral systems as related to targeted outcomes and SRH food and water systems	х	Х	Х
		3.2C2	Addresses gaps in meeting customer/target population referral needs		х	Х
		3.2C3	Communicates impact of referrals related to SRH food and water systems to decision makers and the community		х	Х
		3.2C4	Develops and implements quality improvement processes to strengthen SRH food and water referral systems			Х
3.3	Contri	butes to	or designs customer/target population ^b -centered services	Х	Х	Х
	3.3A	target population 3.3A1 Incorporates SRH food and water systems indicators into			х	Х
		3.3A1	Incorporates SRH food and water systems indicators into individual nutrition assessment (eg, diet history, food frequency questionnaire)	х	Х	Х
		3.3A2	Incorporates SRH food and water systems indicators into community health needs assessments		Х	Х
		3.3A3	Considers SRH food and water systems indicators when evaluating health disparities and sociodemographic determinants of customers and communities		Х	Х
		3.3A4	Conducts comprehensive food and water systems assessments			Х
		3.3A5	Develops recommendations for strengthening services that support SRH food and water systems principles			Х
	3.3B	conditi	s knowledge of the customer's/target population's health ons, cultural beliefs, and business objectives/services to guide and delivery of customer-centered services	x	Х	Х
		3.3B1	Identifies local and regional entities who integrate SRH food and water systems principles into services	х	х	Х
		3.3B2	Partners with community entities who integrate SRH food and water systems principles into services		х	Х
		3.3B3	Applies recommendations from food and water systems assessments		Х	Х

	Font Inc	licators ar	re Academy Core RDN Standards of Professional Performance	The "X" signifies the indicators for the level of practice		
Each	RDN:			Competent	Proficient	Expert
		3.3B4	Designs and delivers programs and services that incorporate SRH food and water systems principles			Х
		3.3B5	Designs and implements organizational, community, and public policies that integrate SRH food and water systems principles and support customer/target population needs			Х
	3.3C		unicates principles of disease prevention and behavioral appropriate to the customer/target population	х	х	Х
		3.3C1	Considers social determinants of health when linking messages and modes of communication to the needs of a target population	х	Х	х
		3.3C2	Educates customers/target population about food safety issues related to SRH food and water systems principles (eg, production and food processing methods)		Х	Х
		3.3C3	Develops nutrition education that integrates SRH food and water systems principles for customer/target population			Х
	3.3D	establis	brates with the customers/target populations to set priorities, sh goals, and create customer-centered action plans to e desirable outcomes	x	Х	х
	3.3E		s customers/target populations in decision-making that ts SRH food and water systems	Х	Х	Х
3.4			ams/services that integrate SRH food and water systems organized, collaborative and customer-centered manner	Х	х	Х
	3.4A		prates and coordinates with peers, colleagues and within sciplinary teams	х	х	х
		3.4A1	Engages with networks with organizations who provide SRH food and water systems programs/services to communities		х	Х
		3.4A2	Organizes a Community of Practice, or network, of engaged stakeholders around SRH food and water systems issues within an organization or community			Х
		3.4A3	Identifies partnerships and opportunities that expand implementation of SRH food and water systems initiatives			Х
	3.4B	prograi princip campai	bates in or leads in the design, execution, and evaluation of ms and services that integrate SRH food and water systems les (eg, community food assessment, food system initiatives/ gns, food and water systems education, food and water s impact analysis for customers)	x	x	х
		3.4B1	Conducts needs assessments with partners on programs and services that integrate SRH food and water systems principles		х	Х

Bold Font Ind Indicators	dicators a	re Academy Core RDN Standards of Professional Performance	-	fies the indic	
Each RDN:			Competent	Proficient	Expert
	3.4B2	Plans and implements programs and services that integrate SRH food and water systems principles and are based on community needs, assets, culture, evidence-based strategies, and available resources		Х	Х
	3.4B3	Evaluates and reports on the health, environment, social, and economic impacts of food and water systems initiatives within a community			Х
	3.4B4	Establishes best practices and evidence-based guidelines for programs and services that integrate SRH food and water systems principles			Х
3.4C	proced training	ps or contributes to design and maintenance of policies, ures, protocols, standards of care, technology resources, and g materials that reflect evidence-based practice in accordance oplicable laws and regulations	х	x	Х
	3.4C1	Updates knowledge of local, state, and federal policies that influence food and water systems	Х	х	Х
	3.4C2	Advocates for public policies that support SRH food and water systems principles	Х	х	Х
	3.4C3	Integrates SRH food and water systems principles into education materials		х	Х
	3.4C4	Prepares evidence-based outreach, education, and advocacy tools on SRH food and water systems issues		х	Х
	3.4C5	Leads advocacy on SRH food and water systems issues as they pertain to nutrition and health		х	Х
	3.4C6	Participates in making policy, research, and program recommendations within a Food Policy Council or similar entity		х	Х
	3.4C7	Integrates SRH food and water systems principles into dietetics education			Х
	3.4C8	Organizes state, regional, national, and international meetings on SRH food and water systems issues			Х
	3.4C9	Serves as consultant on initiatives that promote SRH food and water systems principles			Х
3.4D	for exp physici nutritic nutritic consist	bates in or develops process for practice privileges required anded roles and enhanced activities (eg, implement an-driven protocols to initiate or modify orders for diet, on supplements, dietary supplements, enteral and parenteral on, nutrition-related laboratory tests, and medications) ent with state practice acts, regulations, organization policies, edical staff bylaws, if applicable	x	x	Х

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	Font Inc	licators a	e Academy	v Core RDN Standards of Professional Performance	-	ifies the indic	
Each	RDN:				Competent	Proficient	Expert
	3.4E	-	es with est practices	ablished billing regulations and adheres to ethical	х	х	х
	3.4F	with loo disclosu	cal, state, a ure of custo	h other professionals in a manner that is consistent nd federal regulations regarding the use and mer's personal information (including the protection information where applicable)	Х	Х	Х
3.5	Utilizes support personnel appropriately in the delivery of customer centered-care programs that integrate SRH food and water systems principles in accordance with laws, regulations, and organization policies				Х	Х	х
	3.5A	activitie	es, includin	od and water systems principles when assigning g direct care to patients/clients, consistent with experience, and competence of support personnel	х	Х	х
		3.5A1	-	es SRH food and water systems principles into esource policies and practices		Х	Х
		3.5B1		training/continuing education on SRH food and stems for support personnel			Х
	3.5B	Superv	ises suppo	rt personnel	х	х	х
		3.5B1		and evaluates compliance to SRH food and water practices and procedures		Х	Х
		3.5B2		s and implements incentives for compliance with and water systems practices		Х	Х
3.6	Designs and implements delivery systems that integrate SRH food and water systems principles and meet the needs of customers				Х	х	Х
	3.6A					х	х
		3.6A1		customer and community needs related to SRH I water systems	Х	Х	Х
		3.6A2		or develops delivery systems that improve SRH food er systems initiatives		х	Х
			3.6A2i	Establishes service delivery policies to procure sustainable food, water, beverages and service ware		Х	Х
			3.6A2ii	Partners with community or regional soil- and water-conservation districts		Х	Х

	Font Inc ators	licators aı	e Academy	Core RDN Standards of Professional Performance	The "X" signifies the indicators f the level of practice		
Each	RDN:				Competent	Proficient	Expert
		3.6A3		s food and water delivery systems as a means to health, environments (built and natural), and ity		Х	Х
		3.6A4		and continuously improves food- and water-delivery pased on customer feedback and industry standards			Х
	3.6B	addres	s health an	nsults with others, or leads in developing menus to d nutritional needs of target population(s) as well food and water systems principles	х	Х	х
		3.6B1		dietary needs and preferences of target on(s) using SRH food and water systems principles	Х	х	Х
		3.6B2		s menu, production, and standardized recipe practices pased on SRH food and water systems principles		х	Х
			3.6B2i	Incorporates food and beverages procured using SRH food and water systems principles into culturally acceptable menus that provide healthy nutrition		Х	х
		3.6B3		and standardizes recipes and menus that integrate and water systems principles		Х	Х
		3.6B4	Trains staff on recipes and menus that were designed using SRH food and water systems principles			Х	Х
		3.6B5	Implements procurement policies that incorporate SRH food and water systems principles				Х
		3.6B6	Disseminates successful menu policies and practices that integrate SRH food and water systems principles with peers (eg, food and equipment procurement, menus, recipes, cooking techniques, and plating diagrams)				Х
	3.6C	Participates in, consults, or leads interdisciplinary process for determining delivery systems that integrate SRH food and water systems principles for target population(s)		х	Х	Х	
		3.6C1	best mee	icates concerns, priorities, and actions needed to et target population needs and improve SRH food er systems outcomes			х
		3.6C2		data that demonstrates the benefits of SRH food er systems to their organization			Х
3.7		ains recor ns princip		ces provided that integrate SRH food and water	Х	х	Х
	3.7A			ling to organization policy, standards, and system ic health records	Х	х	Х

	Font Ind ators	licators a	re Academy Core RDN Standards of Professional Performance	ce The "X" signifies the indicato the level of practice		
Each	RDN:			Competent	Proficient	Expert
		3.7A1	Documents customer recommendations and outcomes related to SRH food and water systems		Х	Х
	3.7B	-	nents data-management systems to support data collection, nance, and utilization	X	x	Х
	3.7C	cost/be	ata to document outcomes of services (eg, staff productivity, enefit, budget compliance, quality of services) and provide ation for maintenance or expansion of services	х	X	Х
	3.7D		ata to demonstrate compliance with accreditation standards, nd regulations	Х	х	Х
3.8		-	rovision of quality services that integrate SRH food and water les as part of public policy	X	x	х
	3.8A		unicates with policy makers regarding the benefit/cost of services that support SRH food and water systems	Х	x	х
		3.8A1	Collaborates with groups working on SRH food and water systems policies and legislation at local, state, federal, and international levels		Х	Х
		3.8A2	Identifies policies and proposed legislation at local, state, federal, and international levels that impact SRH food and water systems services		Х	Х
		3.8A3	Uses evidence-based information to connect individual and population nutrition and health outcomes to SRH food and water systems practices as a means to influence policy		Х	Х
		3.8A4	Performs SRH food and water systems policy analysis and identifies gaps and opportunities in current public policies			Х
		3.8A5	Develops and implements a communication plan to educate policy makers about benefit/cost of quality SRH food and water systems services			Х
		3.8A6	Organizes dynamic grassroots campaigns to educate and engage the community on benefit/cost of quality SRH food and water systems services			Х
		3.8A7	Evaluates effectiveness of public policy strategies that advance SRH food and water systems services and adjusts strategies as needed			Х
		3.8A8	Facilitates forums about proposed legislation, rules, or codes that impact the delivery of quality SRH food and water systems services			Х
		3.8A9	Develops draft legislation or policies in cooperation with policy makers that advance SRH food and water systems services			х

Bold Font Indicators	ndicators a	re Academy	v Core RDN Standards of Professional Performance	The "X" signifies the indicators fo the level of practice			
Each RDN:				Competent	Proficient	Expert	
3.88			port of services that promote SRH food and water duals, communities, and populations with special	x	Х	Х	
	3.8B1	natural) o	es for policy, systems, and environmental (built and changes that strengthen services and integrate SRH I water systems principles	х	Х	Х	
		3.8B1i	Promotes policy change in support of local and regional food systems (eg, urban farming, community and school gardens, community supported agriculture, value-added processing, financing for beginning farmers, food hubs, regional branding, food cooperatives)		Х	Х	
		3.8B1ii	Advances community food, nutrition, and water security (eg, farm to school; school feeding programs; Special Supplemental Nutrition Program for Women, Infants, and Children; Supplemental Nutrition Assistance Program; farmers' markets; food codes; healthy food options in retail venues; food labeling; training; technical assistance; soil and water conservation)		Х	Х	
		3.8B1iii	Communicates the benefits of policies and initiatives that protect ecosystem health (eg, soil, water, air, energy, biodiversity)		Х	Х	
	3.8B2	that supp	n local, state, federal, or international committees port policies and initiatives that improve the delivery pod and water systems services		х	Х	

Examples of Outcomes for Standard 3: Provision of Services

- Food and nutrition students interested in SRH food and water systems are guided to internships with a focus in those areas
- Customers evaluate their food and beverage consumption goals based on the contributions to health and sustainability
- An RDN is a member of a Food Policy Council and supports actions that improve food and water sustainability and resilience
- Support personnel are trained in SRH food and water system policies and goals and their compliance is routinely monitored
- Menus reflect the cultural needs of the target population and the principles of SRH food and water systems
- Food and water security needs and nutrition status are improved for all customers
- Program/service design and systems reflect organization/business and customer needs and expectations
- Customers participate in establishing goals and customer-focused action plans
- Effective screening and referral services are established
- Customers are satisfied with services and products
- Evaluations reflect expected outcomes
- 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 viable

Standard 4: Application of Research

The registered dietitian nutritionist (RDN) applies, participates in or generates research to enhance practice. Evidence-based practice incorporates the best available research/evidence 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.

	Font Inc ators	dicators are Academy Core RDN Standards of Professional Performance	The "X" signifies the indicators for the level of practice			
Each	RDN:		Competent	Proficient	Expert	
4.1		ses and reviews best available research/evidence for application to ce when integrating SRH food and water systems principles	Х	х	Х	
	4.1A	Identifies science-based information from multiple disciplines and sources (eg, government, national/international nongovernmental organization publications, alternative literature sources) especially when data is not available from the peer-reviewed scientific literature to inform practice decisions	X	Х	Х	
	4.1B	Identifies SRH food and water systems relevant databases (eg, Agricola, Agris, Economic Research Service) and performs systematic reviews of the literature	х	Х	Х	
	4.1C	Critically evaluates the integrity of science-based information for limitations and potential bias		Х	Х	

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	Font Ind ators	dicators are Academy Core RDN Standards of Professional Performance	The "X" signifies the indicators f the level of practice		
Each	RDN:		Competent	Proficient	Expert
	4.1D	Identifies common indicators or outcome measures of SRH food and water systems		х	Х
	4.1E	Identifies gaps in the scientific literature regarding SRH food and water systems practice where evidence-based practice guidelines do not already exist		Х	Х
4.2	Uses best available research/evidence as the foundation for evidence-based practice that supports SRH food and water systems		Х	х	Х
	4.2A	Uses existing indicators or outcome measures of SRH food and water systems	Х	х	Х
	4.2B	Translates SRH food and water systems research and evidence to inform strategies in evidence-based practice		х	Х
	4.2C	Applies an evidence-based approach to develop and/or evaluate proposals compared to existing food and water laws and regulations		х	Х
	4.2D	Critically analyzes current professional practice in comparison to SRH food and water systems practices			Х
4.3	Integrates best available research/evidence related to SRH food and water systems with best practices, clinical and managerial expertise, and customer values		х	Х	х
	4.3A	Evaluates and responds to the unintended consequences and externalities of food and water systems practices		Х	Х
	4.3B	Assesses the reciprocal relationship between diet, food and water systems and integrates into practice			Х
4.4		butes to the development of new knowledge and research in nutrition ietetics as it pertains to SRH food and water systems	Х	х	х
	4.4A	Identifies gaps in the research, evidence-based practice guidelines or the scientific literature		х	Х
	4.4B	Evaluates impacts of food and water systems on environmental, economic, social, and health outcomes		х	Х
	4.4C	Participates in interdisciplinary research teams $^{\rm c}$ to address SRH food and water systems issues		х	Х
	4.4D	Assembles interdisciplinary research teams needed to address SRH food and water systems issues			Х
	4.4E	Leads interdisciplinary research teams needed to address SRH food and water systems issues			Х
	4.4F	Contributes to the development of evidence-based practice guidelines			Х

Indic	Indicators for Standard 4: Application of Research					
	Font Inc	dicators are Academy Core RDN Standards of Professional Performance	The "X" signifies the indicators for the level of practice			
Each	RDN:		Competent	Proficient	Expert	
4.5		otes research through alliances and collaboration with food and ion and other professionals and organizations	Х	х	Х	
	4.5A	Disseminates the results and emphasizes the significance and value of SRH food and water systems research findings	Х	х	Х	
	4.5B	Identifies key stakeholder groups and their SRH food and water systems priorities for further research collaborations		Х	Х	
	4.5C	Advocates to stakeholder organizations for prioritizing and funding of SRH food and water systems research projects			Х	

Examples of Outcomes for Standard 4: Application of Research

- Customers receive appropriate services based on the effective application of best available research/evidence
- Best available research/evidence is used as the foundation of evidence-based practice
- Evidence-based practice, best practices, clinical and managerial expertise, customer values, and SRH food and water systems principles are integrated in the delivery of nutrition and dietetics services

Standard 5: Communication and Application of Knowledge

The registered dietitian nutritionist (RDN) effectively applies knowledge and expertise in communications. **Rationale:**

The RDN works with and through others to achieve common goals by effective sharing and application of their unique knowledge, skills and expertise in food, nutrition, dietetics, and management services.

	Font Inc ators	dicators a	re Academy Core RDN Standards of Professional Performance	2	ifies the indicated of practic	
Each	RDN:			Competent	Proficient	Expert
5.1			current, evidence-based knowledge related to SRH food and as an aspect of the profession of nutrition and dietetics	Х	х	Х
	5.1A		es applicability of SRH food and water systems principles across s of dietetic practice		х	Х
5.2			and applies best available research/evidence that supports vater systems	X	х	Х
	5.2A		strates critical thinking and problem-solving skills when unicating SRH food and water systems issues with others	Х	х	Х
		5.2A1	Assesses SRH food and water systems evidence for merit by considering soundness of methodology, assumptions and values	х	Х	Х

	Font Inc ators	dicators a	re Academy Core RDN Standards of Professional Performance	The "X" signifies the indicators the level of practice		
Each	RDN:			Competent	Proficient	Expert
		5.2A2	Addresses potential bias (eg, funding, motivation, values) and the importance of transparency in SRH food and water systems—related science		Х	Х
		5.2A3	Models critical thinking skills and provides nonthreatening environments for discussions			Х
5.3	comm	unicating	riate information and most effective method or format when SRH food and water systems information and conducting tion and counseling	x	Х	Х
	5.3A		communication methods (eg, oral, print, one-on-one, group, electronic, and social media) targeted to the audience	Х	Х	х
		5.3A1	Considers the current knowledge and viewpoint of the audience related to SRH food and water systems issues and responds to concerns in a respectful manner		Х	Х
		5.3A2	Performs demographic, psychological, and contextual analysis of audience (eg, values, knowledge, and beliefs) to determine best communication strategy for presentation of SRH food and water systems concepts		х	Х
	5.3B		formation technology to communicate, manage knowledge, pport decision making	Х	х	х
		5.3B1	Leads development and use of emerging technology (eg, social media, geographic information system [GIS] mapping, software applications, infographics) to deliver SRH food and water systems information			Х
5.4	-		vledge of SRH food and water systems into health, social unication, and management arenas in new and varied contexts	Х	Х	Х
	5.4A		prates SRH food and water systems principles across diverse s (eg, community, academic institutions, business and industry, care)	х	Х	Х
	5.4B		ts with leaders in a variety of disciplines and educates about od and water systems principles		Х	Х
	5.4C		ps innovative programs that incorporate SRH food and water s principles			х
5.5			evidence-based knowledge of SRH food and water systems , patients/clients, colleagues, and the public	х	Х	х
	5.5A		customers, patients/clients, students, and interns in the ition of SRH food and water systems knowledge and skills	Х	x	х
		5.5A1	Integrates SRH food and water systems principles into existing patient and client education and professional development of RDNs, DTRs, dietetics students, interns, and other professionals		х	Х

	Font Inc	dicators a	re Academy Core RDN Standards of Professional Performance	The "X" signifies the indicators f the level of practice		
Each	RDN:			Competent	Proficient	Expert
		5.5A2	Expands course curricula, site-specific learning activities and research projects to include SRH food and water systems principles while meeting dietetic education competencies			Х
	5.5B		individuals and groups to identify and secure appropriate ailable SRH food and water systems resources and services	Х	х	Х
		5.5B1	Promotes and supports programs, businesses, policies and resources that incorporate SRH food and water systems practices (eg, Special Supplemental Nutrition Program for Women, Infants, and Children Farmers' Market Nutrition Program; local food purveyors; commercial composters)	Х	Х	х
	5.5C	Uses p	rofessional writing and verbal skills in communications	Х	Х	Х
		5.5C1	Delivers presentations and authors books and articles on SRH food and water systems for peers, consumers, health professionals, community groups, policy makers, and food systems leaders		Х	Х
		5.5C2	Functions as an expert or media spokesperson on SRH food and water systems (eg, interviews, guest commentary, editorials)			Х
5.6	Establishes credibility and contributes to the interdisciplinary health care and management team promoting SRH food and water systems strategies that enhance health and quality of life outcomes of target populationsXX				Х	
	5.6A		tes for SRH food and water systems principles to be integrated alth care processes and policies	Х	Х	Х
	5.6B	interdis	cts activities and provides resources to educate members of the ciplinary team about SRH food and water systems, its applications pacts on human, environmental, economic, and social health		Х	Х
	5.6C		as the SRH food and water systems expert on interdisciplinary eg, facilities management, quality management, campus dining)		Х	Х
			performance improvement and research results through d presentations	х	Х	х
5.7	public		· · · · · · · · · · · · · · · · · · ·			
5.7	5.7A	Dissem water s	inates best practices and outcomes specific to SRH food and ystems (eg, institutional marketing materials, campus recruiting, reports, score cards)		Х	Х
5.7	5.7A Seeks state,	Dissem water s annual opportur national,	inates best practices and outcomes specific to SRH food and ystems (eg, institutional marketing materials, campus recruiting,	x	x	x
	5.7A Seeks state,	Dissem water s annual opportur national, izations e Introdu	inates best practices and outcomes specific to SRH food and ystems (eg, institutional marketing materials, campus recruiting, reports, score cards) nities to participate in and assume leadership roles in local, and international professional and community-based	x		

Indi	Indicators for Standard 5: Communication and Application of Knowledge					
	l Font Inc cators	licators are Academy Core RDN Standards of Professional Performance	-	ifies the indic evel of practic		
Each	Each RDN:		Competent	Proficient	Expert	
	5.8C	Nominates peers for SRH food and water systems leadership positions		Х	х	
	5.8D	Serves as the SRH food and water systems expert for organizations (eg, volunteer for sustainability-related committee, write for newsletter, give presentations)			х	
	5.8E	Leads SRH food and water systems initiatives within organization			х	

Examples of Outcomes for Standard 5: Communication and Application of Knowledge

- Expertise in SRH food and water systems-related food, nutrition, and management concepts and applications is demonstrated
- Food and water systems principles are supported by information technology in practice
- Individuals and groups:
 - Receive current and appropriate SRH food and water systems-related information and customer-centered service
 - Demonstrate understanding of SRH food and water systems information received
 - Know how to obtain additional SRH food and water systems guidance from the RDN
- Leadership in SRH food and water systems is demonstrated through active professional, community, and advocacy activities

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.

Bold		r Standard 6: Utilization and Management of Resources dicators are Academy Core RDN Standards of Professional Performance	The "X" signifies the indicators for the level of practice		
Each	RDN:		Competent	Proficient	Expert
6.1	Uses a outco	a systematic approach to manage resources and improve operational mes	Х	х	х
	6.1A	Works within existing programs or policies to conserve natural resources and minimize waste	Х	х	Х
	6.1B	Assesses the use of natural resources (eg, soil, water, biodiversity, energy, paper, cardboard) at departmental and organizational levels to establish benchmarks		Х	Х
	6.1C	Applies natural resource conservation principles to decision making within the department and organization		Х	Х

FROM THE ACADEMY

	Font Ind ators	dicators are Academy Core RDN Standards of Professional Performance	The "X" signifies the indicators for the level of practice		
Each	RDN:		Competent	Proficient	Expert
	6.1D	Identifies opportunities for programs or policies that conserve natural resources and minimize waste		Х	Х
6.2	dietet	ifies management of resources in the provision of nutrition and ic services with the use of standardized performance measures and marking as applicable	х	Х	Х
	6.2A	Assesses adequacy and pertinence of existing benchmarks and enhances SRH food and water systems metrics		х	Х
	6.2B	Leads in strategic planning for quantification of SRH food and water systems specific goals and measures			Х
6.3		ates safety, effectiveness, productivity, and value while planning and ring services and products that integrate SRH food and water systems ples	х	Х	х
	6.3A	Identifies improvements to ensure maximum impact of SRH food and water systems services and products		х	Х
6.4		ipates in quality assurance and performance improvement (QAPI) and nents outcomes and best practices relative to resource management	Х	х	Х
	6.4A	Maintains and evaluates SRH food and water systems QAPI processes	Х	Х	Х
	6.4B	Evaluates SRH food and water systems QAPI processes and communicates outcomes and best practices to leadership, stakeholders and customers		Х	Х
6.5	stakeł	ures and tracks trends regarding patient/customer, employee, and nolder satisfaction in the delivery of products and services that ate SRH food and water systems principles	Х	Х	х
	6.5A	Improves SRH food and water systems products and processes and communicates outcomes and best practices to leadership, stakeholders, and customers		Х	Х

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

- SRH food and water systems principles guide organization decisions and practices
- Natural resources are effectively and efficiently managed
- Documentation of resource use is consistent with practices
- Data are used to promote, improve, and validate organization practices
- Desired outcomes are achieved, documented, and disseminated

^aDefines networks as patients, customers, clients, government agencies, community-based organizations, nongovernment organizations, etc.

^bFor the purposes of the SOPP in SRH Food and Water Systems, customer/target population can refer to a patient, client, community, organization, or institution.

^cInterdisciplinary teams can include agronomists, environmental scientists, economists, community planners, public health professionals, soil scientists, environmental health specialists, etc.

How to Use the Standards of Professional Performance (SOPP) for Registered Dietitian Nutritionists (RDNs) (Competent, Proficient, Expert) in Sustainable, Resilient, and Healthy (SRH) Food and Water Systems as part of the Professional Development Portfolio Process^a

1. Reflect	Assess your current level of practice and whether your goals are to expand your practice or maintain your current level of practice. Review the SOPP for RDNs in SRH Food and Water Systems document to determine what you want your future practice to be, and assess your strengths and areas for improvement. These documents can help you set short- and long-term professional goals.
2. Conduct learning needs assessment	Once you have identified your future practice goals, you can review the SOPP for RDNs in SRH Food and Water Systems document to assess your current knowledge, skills, behaviors, and define what continuing professional education is required to achieve the desired level of practice.
3. Develop learning plan	Based on your review of the SOPP for RDNs in SRH Food and Water Systems, you can develop a plan to address your learning needs as they relate to your desired level of practice.
4. Implement learning plan	As you implement your learning plan, keep reviewing the SOPP for RDNs in SRH Food and Water Systems document to reassess knowledge, skills, and behaviors and your desired level of practice.
5. Evaluate learning plan process	Once you achieve your goals and reach or maintain your desired level of practice, it is important to continue to review the SOPP for RDNs in SRH Food and Water Systems document to reassess knowledge, skills, and behaviors and your desired level of practice.
	Registration <i>Professional Development Portfolio</i> process is divided into five interdependent steps previous step during each 5-year recertification cycle and succeeding cycles.

Figure 5. Application of the Commission on Dietetic Registration Professional Development Portfolio Process.