

Academy of Nutrition and Dietetics: Revised 2017 Scope of Practice for the Nutrition and Dietetics Technician, Registered



The Academy Quality Management Committee

ABSTRACT

The Academy of Nutrition and Dietetics (Academy) is the world's largest organization of food and nutrition professionals and the association that represents credentialed nutrition and dietetics practitioners—nutrition and dietetics technicians, registered (NDTRs) and registered dietitian nutritionists (RDNs). An NDTR's scope of practice in nutrition and dietetics has flexible boundaries to capture the depth and breadth of the individual's practice. The NDTR's practice expands with advances in many areas, including nutrition, food production, food safety, food systems management, health care, public health, community health, and information and communication technology. The Revised 2017 Scope of Practice for the NDTR reflects the position of the Academy on the essential role of the NDTR in the management and delivery of food and nutrition services. The scope of practice for the NDTR is composed of education and credentialing, practice resources, Academy Standards of Practice and Standards of Professional Performance, codes of ethics, accreditation standards, state and federal regulations, national guidelines, and organizational policy and procedures. The Revised 2017 Scope of Practice for the NDTR is used in conjunction with the Revised 2017 Standards of Practice in Nutrition Care and the Standards of Professional Performance for NDTRs. The Standards of Practice address activities related to direct patient and client care. The Standards of Professional Performance address behaviors related to the technical role of NDTRs. These standards reflect the minimum competent level of nutrition and dietetics practice and professional performance for NDTRs. A companion document addresses the scope of practice for the RDN.

J Acad Nutr Diet. 2018;118:327-342.

THE ACADEMY OF NUTRITION and Dietetics (Academy) is the world's largest organization of food and nutrition professionals and the association that represents credentialed nutrition and dietetics practitioners—nutrition and dietetics technicians, registered (NDTRs) and registered dietitian nutritionists (RDNs). The Academy's mission is to accelerate improvements in global health and well-being through food and nutrition. NDTRs integrate research, professional development, and practice to stimulate innovation and discovery; collaborate to solve the greatest food and nutrition challenges now and in the future; focus on system-wide impact across the food, wellness, and health sectors; have a global impact in eliminating all forms of malnutrition; amplify the contribution of nutrition and dietetics practitioners; and expand workforce

capacity and capability.¹ The Academy is the leader in identifying the abilities of NDTRs and linking the NDTR's education, training, and experience to the valuable contributions made working with RDNs in clinical settings and applying their knowledge and skills to other practice roles and settings.

PURPOSE

This document describes the scope of practice for NDTRs. The NDTR is educated and trained in food and nutrition science and dietetics practice. NDTRs are integral members of the interprofessional nutrition and food-service management teams. They work in employment settings, such as health care, business and industry, community and public health systems, schools, wellness and fitness centers, agribusiness, and research.^{2,3} The purposes of this document are to:

1. Describe the scope of practice for the NDTR.
2. Convey the education and credentialing requirements for the NDTR in accordance with the Accreditation Council for

Education in Nutrition and Dietetics (ACEND) and the Commission on Dietetic Registration (CDR).

3. Educate health care professionals, health care administrators, foodservice providers, educators, students and prospective students, regulators, business owners and managers, legislators, and the public about the NDTR's qualifications, skills, and competence, as well as roles, responsibilities and technical services provided by NDTRs.

Approved September 2017 by the Quality Management Committee of the Academy of Nutrition and Dietetics (Academy) and the House of Delegates Leadership Team on behalf of the House of Delegates. Scheduled review date: June 2023. Questions regarding the Revised 2017 Scope of Practice for the Nutrition and Dietetics Technician, Registered may be addressed to the Academy Quality Management Staff: Dana Buelsing, MS, manager, Practice Standards Operations; and Sharon M. McCauley, MS, MBA, RDN, LDN, FADA, FAND, senior director, Quality Management at quality@eatright.org.

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<https://doi.org/10.1016/j.jand.2017.10.005>
 Available online 23 December 2017

The Academy's Board of Directors and Commission on Dietetic Registration have determined that those who hold the credential Dietetic Technician, Registered (DTR) may optionally use "Nutrition and Dietetics Technician, Registered" (NDTR). The two credentials have identical meanings. The same determination and option also applies to those who hold the credential Registered Dietitian (RD) and Registered Dietitian Nutritionist (RDN). The two credentials have identical meanings. In this document, the term *NDTR* is used to refer to both dietetic technicians, registered, and nutrition and dietetics technicians, registered, and the term *RDN* is used to refer to both registered dietitians and registered dietitian nutritionists.

4. Describe the relationship between the NDTR and RDN to illustrate the work of the RDN/NDTR team in direct patient/client care settings or with individuals receiving individualized medical nutrition therapy where NDTRs work under the supervision of an RDN.⁴⁻⁶
5. Guide the Academy, ACEND, and CDR in developing and promoting programs and services to advance the practice of nutrition and dietetics and the role of the NDTR and/or the RDN/NDTR team.

The credential *Nutrition and Dietetics Technician, Registered* is a nationally protected title issued by CDR. The Academy's Revised 2017 Scope of Practice for the NDTR applies to all, and only, NDTRs. This document does not apply to food and nutrition managers, chefs, or nutritionists with or without credential(s). The Academy publishes a scope of practice for the RDN. The RDN credential is also issued and administered by CDR and is a nationally protected title.

WHY WAS THE SCOPE OF PRACTICE FOR THE NDTR REVISED?

Academy documents are reviewed and revised every 7 years and reflect the Academy's expanded and enhanced mission and vision of accelerating improvements in global health and well-being through food and nutrition. Regular reviews are indicated to reflect

Nutrition is defined as the "science of food, the nutrients and other substances therein, their action, interaction and balance in relation to health and disease, and the process by which the organism ingests, absorbs, transports, utilizes and excretes food substances."

Dietetics is derived from sciences of food, nutrition, management, communication, and biological sciences, including cell and molecular biology, genetics, pharmacology, chemistry, and biochemistry and physiological, behavioral, and social sciences.

Nutrition and Dietetics reflects the integration of nutrition—which encompasses the science of food, nutrients and other substances contributing to nutrition status and health, with dietetics—which is the application of food, nutrition and associated sciences, to optimize health and the delivery of care and services for individuals and groups.¹⁶

changes in health care and other business segments, public health initiatives, practice guidelines and research, performance measurement, consumer interests, technological advances, and emerging service delivery options and practice environments. Questions and input from credentialed practitioners, federal and state regulations, accreditation standards, and other factors necessitated a review and revision of the following 2012 documents that were scheduled for updates in 2017:

- Academy of Nutrition and Dietetics: Scope of Practice for the Dietetic Technician, Registered⁷;
- Academy of Nutrition and Dietetics: Scope of Practice for the Registered Dietitian⁸;
- Academy of Nutrition and Dietetics: Revised 2012 Standards of Practice in Nutrition Care and Standards of Professional Performance for Dietetic Technicians, Registered⁹; and
- Academy of Nutrition and Dietetics: Revised 2012 Standards of Practice in Nutrition Care and Standards of Professional Performance for Registered Dietitians.¹⁰

FOUNDATIONAL DOCUMENTS

Academy documents, along with applicable state and federal regulations, state practice acts, accreditation standards, organizational program policies, guidelines and national practice informed

standards serve as guides for ensuring safe, ethical, culturally competent,¹¹ equitable, person-centered, quality nutrition and dietetics practice. Uses may include any of the following: guide career advancement, assist in self-evaluation, develop position descriptions, contribute to hiring decisions, initiate regulatory reform, or determine whether a specific activity aligns with a practitioner's individual scope of practice, such as an NDTR practicing autonomously. Core documents of the Academy that provide a foundation for the profession of nutrition and dietetics include:

- Academy/CDR Code of Ethics¹² (Revised and approved Code of Ethics available in 2018);
- Revised 2017 Scope of Practice for the Nutrition and Dietetics Technician, Registered;
- Revised 2017 Scope of Practice for the Registered Dietitian Nutritionist¹³;
- Revised 2017 Standards of Practice in Nutrition Care and Standards of Professional Performance for Nutrition and Dietetics Technicians, Registered¹⁴;
- Revised 2017 Standards of Practice in Nutrition Care and Standards of Professional Performance for Registered Dietitian Nutritionists¹⁵; and
- Focus Area Standards of Practice and/or Standards of Professional Performance for RDNs (<http://www.andjrn.org/content/focus> and <http://www.andjrn.org/content/credentialed>).

SCOPE OF PRACTICE

For NDTRs, scope of practice focuses on food, nutrition, and dietetics practice, as well as related services. NDTRs work under the supervision of an RDN when in direct patient/client nutrition care, and may work independently in providing general nutrition education to healthy populations, consulting to foodservice business and industry, conducting nutrient analysis, collecting data and conducting research, and managing food and nutrition services in a variety of settings. The scope of practice in nutrition and dietetics encompasses the range of roles, activities, and regulations within which nutrition and dietetics practitioners perform as outlined in Figure 1.¹⁶

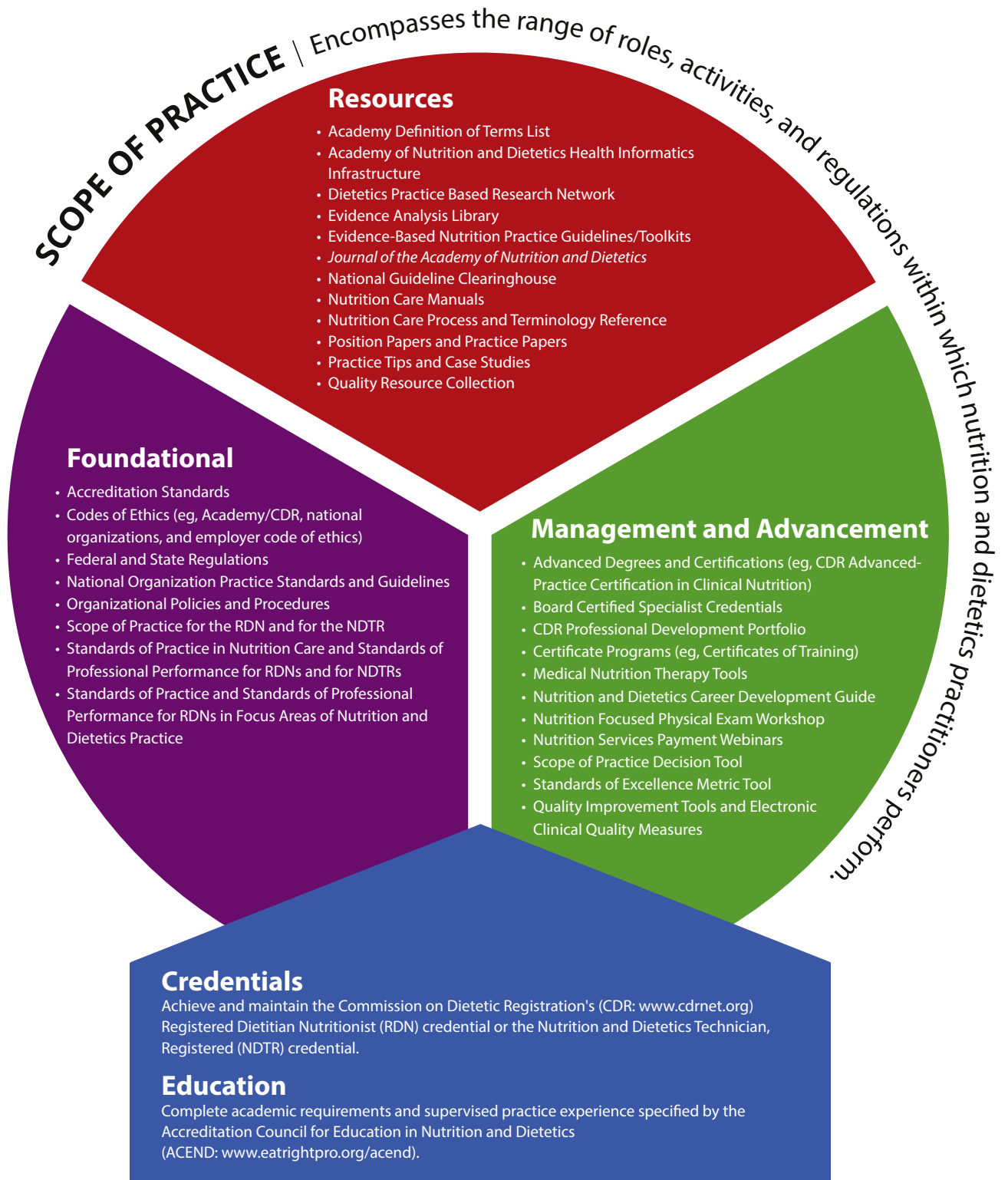


Figure 1. Nutrition and dietetics practice components for registered dietitian nutritionists (RDNs) and nutrition and dietetics technicians, registered (NDTRs).

The scope of practice for the NDTR includes practice components used in nutrition and dietetics. Its depth and breadth begins with education and credentialing; incorporates practice resources; concentrates on foundation elements of standards of practice and professional performance, codes of ethics (eg, Academy/CDR, other national organizations, and/or employer code of ethics), accreditation standards, state and federal regulations, national guidelines, and organizational policy and procedures; and options and resources for practice management and advancement.

EDUCATION AND CREDENTIALING REQUIREMENTS

NDTRs are educated at the technical level of nutrition and dietetics practice, which promotes a general understanding of the scientific basis of the practice of nutrition and dietetics with exposure to research literature and nutrition care application.¹⁷ The national credential NDTR is granted to individuals who meet the education and other qualifications established by ACEND and CDR.

Education

NDTR educational programs are accredited by ACEND, the accrediting agency for dietetics education programs of the Academy. ACEND is recognized by the US Department of Education as the accrediting agency for education programs that prepare nutrition and dietetics practitioners. Each of the following education routes lead to eligibility for application to CDR's Registration Examination for the NDTR credential:

1. Successful completion of a Nutrition and Dietetics Technician Program accredited by ACEND, which includes 450 hours of supervised practice experience in various community-based programs, health care, and foodservice facilities; and has completed at least a 2-year associate's degree at a US regionally accredited college or university. Coursework typically includes fundamentals of nutrition, nutrition across the lifespan, applied food science, techniques of food preparation, foodservice systems management, regulatory policy related to nutrition and dietetics operations,

chemistry, physiology, microbiology applied to food safety, human resource management, cultural competency,¹¹ communications, and business.

2. Successful completion of coursework in an ACEND-accredited Didactic Program in Nutrition and Dietetics and completion of at least a baccalaureate's degree at a US regionally accredited college or university.

Approximately 40% of NDTRs have earned a bachelor's degree or higher.¹⁸ For more information regarding the academic and supervised practice requirements to be eligible to take the credentialing examination to become an NDTR, refer to ACEND's website at <http://www.eatrightpro.org/resources/acend>.

Credentialing

Credentialing is maintained through CDR. Qualified individuals must obtain and maintain registration through CDR to use the nationally protected title of Nutrition and Dietetics Technician, Registered. After completing the degree and nutrition and dietetics coursework, candidates must successfully pass the registration examination for Nutrition and Dietetics Technician credential administered by CDR. The CDR NDTR certification program is fully accredited by the National Commission for Certifying Agencies, the accrediting arm of the Institute for Credentialing Excellence. Accreditation by the Institute for Credentialing Excellence reflects achievement of the highest standards of professional credentialing.¹⁹ For more information regarding NDTR credentialing, refer to CDR's website at www.cdrnet.org/.

COMPETENCE IN PRACTICE

The Academy's Nutrition and Dietetics Career Development Guide is a cornerstone for practice management and personal advancement in nutrition and dietetics. The Guide uses the Dreyfus model of skill acquisition to illustrate how a practitioner attains increasing levels of knowledge and skill throughout a career.²⁰ Through lifelong learning and professional development, practitioners acquire and develop skills that lead to enhanced competence and levels of practice. The

Academy's website features a graphic representation and explanation of the Guide (www.eatrightpro.org/resource/practice/career-development/career-toolbox/dietetics-career-development-guide).

NDTRs are required to maintain registration, including 50 hours of continuing education every 5 years, documented in the CDR Professional Development Portfolio.²¹ In 2015, CDR released the Essential Practice Competencies for CDR Credentialed Nutrition and Dietetics Practitioners to provide overarching validated standards for NDTRs and RDNs. Practice competencies define the knowledge, skill, judgment, and attitude requirements throughout a practitioner's career, across practice, and within focus areas. Competencies provide a structured guide to help identify, develop, and evaluate the behaviors required for continuing competence.^{22,23}

In addition to credentials, CDR, the Academy, accredited education institutions, and other national organizations offer certificate of training programs for NDTRs to gain new skills and develop their practice. Certificates of training assist NDTRs in attaining competence in focus areas of practice and may lead to acquiring advanced degrees and certification credentials. Certificate of training programs provide instruction and training and assess participant knowledge; continuing professional education units are provided (eg, Certificate of Training in Adult Weight Management).

An example of a credential/certification is the National Board Certified Health and Wellness Coach.¹⁶ This certification validates competencies previously acquired through work experience. In keeping with the Academy/CDR Code of Ethics, NDTRs can only practice in areas in which they are qualified and have demonstrated and documented competence to achieve ethical, safe, and quality outcomes in the delivery of food and nutrition services.¹² Competence is an overarching "principle of professional practice, identifying the ability of the provider to administer safe and reliable services on a consistent basis."²⁴ Competent practitioners understand and practice within their scope of practice; use evidence-based¹⁶ knowledge, skills, and best practices; make sound decisions based on appropriate data; communicate effectively with patients, customers, and others;



Figure 2. Individual Scope of Practice for Registered Dietitian Nutritionists (RDNs) and Nutrition and Dietetic Technicians, Registered (NDTRs).

critically evaluate their own practice; identify the limits of their competence; and improve performance based on self-evaluation, applied practice, and feedback from others.²⁵ In addition, practice competence involves the ability to engage in deductive reasoning that facilitates problem solving and fosters person-centered behaviors and participatory decision making.²⁶

Integral to the NDTR's commitment to lifelong learning supported by CDR's Portfolio Development Process is the

recognition that additional knowledge, skills, experience, and demonstrated competence are imperative to maintaining currency with advances in practice and to evaluate the nutrition care workflow processes for improving health outcomes.^{21,23}

INDIVIDUAL SCOPE OF PRACTICE

Each NDTR has an individual scope of practice, which is determined by education, training, credentialing,

experience, and demonstrated and documented competence in practice.^{12,16} Individual scope of practice is the intersection point of several elements, as illustrated in Figure 2. The NDTR must review the Academy Scope of Practice; state laws (ie, licensure, certification, title protection), if applicable; regulations and interpretive guidelines; Centers for Medicare and Medicaid Services conditions of participation and coverage; accreditation standards and measures; organizational

This document, the Revised 2017 Scope of Practice for the NDTR, does not supersede state practice acts (ie, licensure, certification, or title protection laws). However, if state law does not define scope of practice for the NDTR or address the NDTR in RDN statutes or regulations, the information within this document may assist with identifying activities that may be permitted within an NDTR's individual scope of practice based on qualifications (ie, education, training, certifications, organization policies, and demonstrated and documented competence).

policies and procedures; and additional training, credentials, and certification options possibly needed to secure advance levels of practice, emerging opportunities, and employment positions. An NDTR's scope of practice in nutrition and dietetics has flexible boundaries to capture the depth and breadth of the individual's professional practice. Individuals and organizations must ethically take responsibility for determining the competence of each individual to provide a specific service.¹²

STATE LICENSURE AND PRACTICE ACTS

State licensure and practice acts guide and govern nutrition and dietetics practice. These statutory provisions act to ensure the public has access to professionals that are qualified by education, experience, and examination to provide nutrition care services.¹⁶ As of 2017, 46 states have statutory provisions regarding professional regulations for dietitians and/or nutritionists and one state for dietetic technicians (<http://www.eatrightpro.org/resource/advocacy/legislation/all-legislation/licensure>). This document, the Revised 2017 Scope of Practice for the NDTR, may also be used to guide development of state practice acts or regulations.²⁷

STATUTORY SCOPE OF PRACTICE

“Legal scopes of practice for the health care professions establish which professionals may provide which health care services, in which settings, and under which guidelines or parameters. With few exceptions, determining scope of practice is a state-based activity. State legislatures consider and pass

practice acts, which become state statute or code. State regulatory agencies, such as medical and other health professions' boards, implement the laws by writing and enforcing rules and regulations detailing the acts.”²⁸ Requirements for continuing education may also be specified in the practice act.

CREDENTIALS, CERTIFICATES OF TRAINING, AND RECOGNITIONS AVAILABLE FOR NDTRs

Obtaining additional academic degree(s), and/or certificates of training or credentials are opportunities that may be desirable or required for specific areas of practice or work settings. Additional food and health-related credential options for NDTRs are listed in [Figure 3](#). Health and wellness coaching credentials/certifications that may also be held by NDTRs are outlined in [Figure 4](#). As coaching is an area of growing interest, this list is not all-inclusive, as new programs are emerging and existing programs are being updated. [Figure 5](#) lists certificate of training programs offered by CDR and the corresponding continuing professional education (CPE) units for each program. The programs are intensive training programs that include a self-study module and pretest, on-site program, and a take-home post-test. Certificate of training and certification programs offered by other nationally recognized organizations may also be beneficial to NDTRs but may not be eligible for CPE units without prior approval; see the Professional Development Portfolio Guide for a list of credentials approved for CPE units (<https://www.cdrnet.org/pdp/professional-development-portfolio-guide>). The lists are not all-inclusive. The credentials listed are not an endorsement and should be appropriately evaluated by the NDTR for benefit in meeting patient/client/group/population/employer needs for delivery of food and nutrition-related services.

The Academy's Professional Development Department offers distance learning through online certificate of training programs, teleseminars, webinars, and self-study options on various topics for continuing education. Learn more about CPE unit options at <http://www.eatrightpro.org/resource/career/professional-development/distance-learning/online-learning>. For certificates of training CPE unit opportunities, access

the list at: <http://www.eatrightstore.org/products/cpe-opportunities/certificates-of-training>.

The Academy began offering the recognition certificate “Fellow of the Academy of Nutrition and Dietetics” (FAND) in 2013. FAND recognizes members who have distinguished themselves among their colleagues, by their service to the nutrition and dietetics profession and by optimizing the nation's health through food and nutrition.³⁰

RDN/NDTR TEAM AND GUIDELINES FOR RDN SUPERVISION OF THE NDTR

Direct Nutrition Care

As a member of the RDN/NDTR team, the NDTR supports the RDN by providing key oversight and communication concerning delivery of quality food and nutrition services to patients/clients.⁴ The NDTR and other support staff work under the supervision of the RDN when engaged in direct patient/client nutrition care activities in any setting.¹⁴ Patient/client populations include individuals receiving individualized care who have medical conditions or diseases, as well as at-risk individuals receiving personalized nutrition guidance as part of preventive health care.

The degree of direction and supervision is determined by the RDN based on the medical and nutritional complexity of the patient/client needs, and the experience and demonstrated and documented competence of the NDTR. The RDN is responsible for nutrition care assigned to and completed by NDTRs and other professional, technical, and support staff, and is accountable to the patient/client, employer/organization, and regulator. Additional considerations include state dietitian/nutritionist practice acts and rules that may define supervision, and if applicable, statutory scope of practice specifications for technical and other assistive staff. Federal and state rules and regulations for health care facilities specify that the qualified dietitian must supervise the nutritional aspects of patient care and provide nutrition assessments and dietary counseling.³¹ NDTRs working in skilled or long-term care facilities as the food and nutrition director/manager work in collaboration

Credentialing agency	Credential
American Academy of Professional Coders	Certified Professional Coder (CPC)
American Association of Family and Consumer Sciences	Certified in Family and Consumer Sciences ^a (CFCS)
American College of Sports Medicine (ACSM)	ACSM-Certified Personal Trainer (CPT) ACSM-Certified Health/Fitness Specialist (HFS)
American Council on Exercise (ACE)	ACE-Certified Personal Trainer ACE-Certified Group Fitness Instructor ACE-Certified Advanced Health & Fitness Specialist
American Culinary Federation-Institute for Credentialing Excellence	Certified Fundamentals Cook (CFC) Certified Culinary Educator ^a (CCE) Certified Secondary Culinary Educator ^a (CSCE)
Board of Certification, Inc, for the Athletic Trainer	Athletic Trainer
Certifying Board of Dietary Managers-Association of Nutrition & Foodservice Professionals	Certified Dietary Manager (CDM); Certified Food Protection Professional (CFPP)
Commission for Case Manager Certification	Board-Certified Case Manager ^a (CCM)
Healthcare Quality Certification Commission	Certified Professional in Healthcare Quality (CPHQ) ^b
The International Board of Lactation Consultant Examiners, Inc	International Board Certified Lactation Consultant (IBCLC) ^{b,c}
National Commission for Health Education Credentialing, Inc	Certified Health Education Specialist ^a (CHES)
National Environmental Health Association	Certified Professional-Food Safety (CP-FS)
National Strength and Conditioning Association (NSCA)	NSCA-Certified Personal Trainer (NSCA-CPT)
Project Management Institute	Certified Associate in Project Management (CAPM) Project Management Professional (PMP)
School Nutrition Association ^d	School Nutrition Specialist (SNS) ^b
^a Requires bachelor's degree. ^b Fifty continuing professional education units approved by Commission on Dietetic Registration (CDR) for completion of certification for alternate recertification periods. ²¹ ^c Fifty continuing professional education units approved by CDR for completion of certification for consecutive recertification periods. ²¹ ^d CDR-accredited provider. ²⁹	

Figure 3. Credentials that can be held by the nutrition and dietetics technician, registered (NDTR) (not all-inclusive).

with the facility's RDN to address a resident's diet- or nutrition-related orders when the physician has delegated diet order writing to the dietitian.^{14,32}

Nutrition Care and Workflow

NDTRs provide nutrition care services for patients/clients under the supervision of the RDN to address prevention and treatment of acute and chronic diseases and conditions and the promotion of overall health and wellness:

- Assist the RDN with the collection of data and other activities that contribute to:
 - nutrition assessment of patients/clients;
 - development of nutrition-related priorities, goals, and objectives; and
 - implementation of the nutrition care plan. Refer to the Revised 2017 Standards of Practice in Nutrition Care and Standards of Professional Performance for NDTRs.¹⁴
- Assist with providing ongoing management and revision of nutrition interventions reflecting patient/client response to nutrition care.⁴ These activities involve application of the Academy's Nutrition Care Process.³³
- Implement and monitor nutrition interventions, as assigned by the RDN, to meet the nutritional needs of the patient/client, including, but not limited to, prescribed diets, snacks/nourishments, medical foods/nutritional supplements, and data collection for nutrition support therapies.
- Provide nutrition information and education per program guidelines, for example, the Special Supplemental Nutrition Assistance Program for Women,

Credentialing Agency	Credential/Certification
American Council on Exercise (ACE)	ACE-Certified Lifestyle and Weight Management Coach ACE-Certified Health Coach
American Institute of Health Care Professionals	Health Care Life Coach-Certified (HCLC-C)
International Association for Health Coaches	Certified International Health Coach (CIHC)
National Society of Health Coaches ^a	Certified Health Coach (CHC)
International Consortium for Health & Wellness Coaching and National Board of Medical Examiners	National Board Certified Health & Wellness Coach (NBC-HWC)
Wellcoaches Corporation ^a	Certified Health & Wellness Coach Certified Personal Coach
^a Commission on Dietetic Registration—Accredited Provider. ²⁹	

Figure 4. Coach credential or certification options held by the nutrition and dietetics technician, registered (NDTR) (not all-inclusive).

Infants, and Children (WIC), or as assigned by the RDN, to individuals, families, or caregivers to address prevention, health maintenance, treatment, and restorative health care.

- Develop menus, recipes, and complete nutritional analysis of menus, recipes, and food records.

In direct patient/client care, the NDTR plays an integral role in collecting all types of information, including assessment and evaluation, reporting observations, and communicating with the patient/client, family, or caregiver. Role delineation for the NDTR working under the supervision of an RDN in delivering nutrition care to patients/clients and accountability for performing the steps of the Nutrition Care Process is outlined in [Figure 6](#); the RDN

provides supervision of the NDTR or other support staff who provide nutrition care assigned by the RDN.⁵

Community/Nonclinical Settings

The role for an NDTR in providing nutrition services in nonclinical settings where an RDN may not be directly involved in the program or activity is guided by the NDTR's individual scope of practice and requirements specified in regulations, employer organizational policies and procedures, and state practice acts for RDNs or other disciplines, when applicable. These settings include community nutrition programs, fitness and wellness centers, school nutrition, maternal and child nutrition programs, senior meal and home-delivered meal programs, supermarket-retail, and

corporate health. Roles for qualified NDTRs include providing nutrition education and guidance related to population-based public health initiatives; and managing foodservice operations collaborating with the RDN for menu approval according to regulations. Examples are national food guidance systems,^{34,35} physical activity programs,³⁶ meal services (eg, Meals on Wheels and Summer Food Service Program), and environmental nutrition issues (food security, sustainable food and water systems).

Knowledge, skills, compliance with regulations, and demonstrated and documented competence are critical to the safe provision of quality service. The NDTR recognizes when consultation with or referral to an RDN is required and acts appropriately when limits of individual scope of practice involving patient/client/population nutrition care are reached.⁶

ETHICAL BILLING PRACTICES

NDTRs must have sound business skills, and know and adhere to the elements of ethical billing across the continuum of practice management.^{12,37} NDTRs may be eligible to bill for self-pay services within their scope of practice (eg, supermarket-retail NDTR, private practice, coach, menu analysis) or services that meet payer requirements (eg, coaching or corporate wellness).

PRACTICE AREAS, SERVICES, AND ACTIVITIES

The profession of nutrition and dietetics is dynamic, diverse, and continuously evolving. The depth and breadth of the NDTR's practice expands with advances in many areas, including nutrition, food production, food safety, food systems management, health care, public health, community nutrition, and information and communication technology. The NDTR understands how these advances influence health status, disease prevention and treatment, quality of life, agriculture, ecological sustainability, business innovation, and the safety and well-being of the public. The diversity of the population, federal and state legislative actions, health and chronic disease trends, and social and environmental trends affect the NDTR technical practice in nutrition and dietetics.³⁸ Lifestyle practices that reduce

Training title	CPEUs
Certificate of Training in Adult Weight Management Program	35
Level 2 Certificate of Training in Adult Weight Management Program	50
Certificate of Training in Childhood and Adolescent Weight Management	32

Figure 5. Commission on Dietetic Registration Certificates of Training in Weight Management.

Nutrition Care Process and Workflow element	RDN Role	NDTR Role
Nutrition Screening	Perform or obtain and review nutrition screening data	Perform or obtain nutrition screening data
Nutrition Assessment	Perform via in-person, or facility/practitioner assessment application system, or HIPAA ^a compliant video conferencing telehealth platform and document results of assessment	Assist with or initiate data collection as directed by the RDN or per standard operating procedures and begin documenting elements of the nutrition assessment for finalization by the RDN
Nutrition Diagnosis	Determine nutrition diagnosis(es)	Per RDN-assigned ^b task, communicate and provide input to the RDN
Nutrition Intervention/ Plan of Care	Determine or recommend nutrition prescription and initiate interventions. When applicable, adhere to established and approved disease or condition-specific protocol orders from the referring practitioner	Implement/oversee standard operating procedures; assist with implementation of individualized patient/client/customer interventions and education as assigned ^b by the RDN
Nutrition Monitoring and Evaluation	Determine and document outcome of interventions reflecting input from all sources to recognize contribution of NDTR/nutrition care team members to patient/client experience and quality outcomes	Implement/oversee (duties performed by other nutrition, foodservice staff) standard operating procedures; complete, document, and report to the RDN and other team members the results and observations of patient/client-specific assigned monitoring activities
Discharge Planning and Transitions of Care	Coordinate and communicate nutrition plan of care for patient/client discharge and/or transitions of care	Assist with or provide information as assigned ^b by the RDN

^aHIPAA=Health Insurance Portability and Accountability Act.

^bThe RDN or clinically qualified nutrition professional³² is ultimately responsible and accountable to the patient/client/advocate, employer/organization, consumer/customer, and regulator for nutrition activities assigned to NDTRs and other technical, professional, and support staff.

Figure 6. Nutrition Care Process and Workflow: Roles of registered dietitian nutritionists (RDNs) and nutrition and dietetics technicians, registered (NDTRs).

risk of chronic disease depend on active participation by patients, clients, and consumers in decisions that promote health and well-being. Integral to this effort, NDTRs play a role in promoting access to and assisting the public in incorporating healthful eating behaviors and food choices into daily lives, and aiding individuals in making informed choices regarding food and nutrition.¹⁸

The majority of NDTRs are employed in health care or public health settings¹⁸ as RDN/NDTR team members working under the supervision of RDNs or as members of RDN/NDTR teams within interprofessional health care teams.⁴ As a member of the RDN/NDTR team, the NDTR interacts with health care practitioners (eg, physicians,

nurses, nurse practitioners, pharmacists, speech-language pathologists, occupational therapists, physical therapists, social workers, exercise physiologists, respiratory therapists, and lactation consultants) and others to obtain and communicate information that contributes to nutrition assessment and assists with implementation and monitoring of the patient's/client's nutrition intervention plan, which is developed and directed by the RDN.

NDTRs may manage foodservice operations in hospitals, post-acute and long-term care settings, schools, and other institutional settings. In addition, NDTRs work in community settings, schools, home care, academia, and research in a variety of roles. Increasingly, NDTRs work in health care or

food-related businesses and industries, fitness and sports, corporate wellness, food insecurity, sustainable resilient healthy food and water systems, nutrition informatics, and other emerging areas. NDTRs may obtain additional academic degrees, certificates of training, or credentials to enhance competence, qualifications, and career options (eg, advance to RDN level). Practice settings, services, and activities are discussed using terminology common in each area. Services and activities are not limited to the areas in which they are described. NDTRs have multiple responsibilities and perform services and activities in various settings.

Examples of NDTR practice areas, services, and activities are discussed here (in alphabetical order). Some

activities, with the knowledge and skills they illustrate, may apply to multiple areas or settings according to the NDTR's role and responsibilities.

Acute and Ambulatory Outpatient

NDTRs work as part of nutrition care team and/or foodservices in health care settings such as hospitals, ambulatory and community clinics, Veterans Affairs' and military facilities, or work as employees of contract food and nutrition management companies. NDTRs:

- Participate in nutrition programs and services. In health care settings, roles, and responsibilities of NDTRs may include conducting or following up on nutrition screening and contributing to nutrition assessment, interventions, and monitoring under the supervision of the RDN.
- Provide nutrition education, with approval of and under the supervision of the RDN, that addresses prescribed diet therapy, or nutrition guidelines for health maintenance or prevention or management of medical conditions.

Business and Communications

NDTRs work in communications, marketing, foodservice computer applications, product development, sales, product distribution, and consumer education. NDTRs:

- Participate in areas such as news and communications, consumer affairs, public relations, food and culinary nutrition, and human resources.
- Author print and electronic publications, newsletters, editorials, columns, social media, podcasts, YouTube videos, and other forms of electronic media.
- Adhere to ethical and employer guidelines for use of social media platforms.^{39,40}
- Manage and develop websites and blogs.

Coaching

NDTRs work as health and wellness coaches in health care facilities, private practice, nonprofit organizations, wellness businesses (eg, in-person or via

telehealth), and corporate wellness. NDTRs:

- Educate and guide clients to achieve health goals through lifestyle and behavior adjustments, have knowledge and understanding of behavior change, culture, social determinants of health, knowledge of motivational interviewing techniques, and educate clients on general nutrition guidelines.¹⁶
- Empower clients to achieve self-determined goals related to health and wellness.¹⁶
- Are knowledgeable of and follow federal and state laws and regulations and appropriate coach certification accreditation organization standards and work within the Academy's Revised 2017 Scope of Practice for the NDTR.

Community and Public Health

NDTRs educate and advise populations and the public participating in federally assisted nutrition programs (eg, Special Supplemental Nutrition Assistance Program for Women, Infants, and Children [WIC], and the Supplemental Nutrition Assistance Program-Education [SNAP-Ed]), community programs (eg, community health centers, Feeding America, Harvesters), and Indian Health Services following guidelines with supervision by RDN(s) or other health professional(s). As specified in regulations, NDTRs consult with an RDN when the NDTR works in and manages meal programs for preschool- and school-aged children and the elderly, and requires nutrition care guidance for a client who has a medical condition affecting nutrition. NDTRs:

- Promote well-being and improved quality of life through food security, food safety, and promotion of healthful eating, physical activity, and lifestyle behaviors, and may assist in the coordination of food and nutrition services during local, state, and national emergencies.
- Manage office and fiscal operations; perform supervisory functions such as training, delegating, evaluating, and scheduling assigned personnel; and complete quality assurance in compliance with regulatory organizations.

- Support leadership in the planning and advocacy efforts to address health equity and decrease health disparities (eg, social determinants of health) of specific populations and promote health policies that improve the patient/client experience of care, improve the health of populations, and reduce the per capita cost of health care.⁴¹
- Use data collection tools, obtain health and nutrition-related data to support client assessment, identify care needs and health or nutrition education, and referral to appropriate community resources to meet client-centered needs as directed by an RDN or other health professional.

Culinary and Retail

NDTRs are culinary educators, supermarket-retail NDTRs, food writers, cookbook authors, chefs, food scientists, food and beverage purchasers, and consultants. NDTRs:

- Provide food, nutrition, and culinary expertise in the selection of ingredients, methods of food preparation, nutrient characteristics, and evaluate cultural appropriateness and customer satisfaction in the production and development of food products, recipes, and menus.
- Educate clients, customers, and the public on food safety, perform menu-labeling services, and provide nutrition education and health promotion for clients, customers, and the public.

Entrepreneurial

NDTRs are entrepreneurs and innovators in providing nutrition products and services to consumers, industry, media, and businesses. Work settings are as varied as the services being provided. NDTRs:

- Provide programs and services consistent with applicable skills, qualifications, and demonstrated and documented competence.

Foodservice Systems

NDTRs are employed in institutional settings where they may supervise, manage, and direct foodservice

operations serving patients/clients, employees, and visitors in retail venues and catered events, or are employed in these capacities by contract foodservice management companies (eg, in hospitals, schools, day-care centers, colleges and universities, continuing-care communities, long-term care hospitals, critical access hospitals, rehabilitation centers, post-acute and long-term care settings, senior meal sites, corrections facilities, and various government facilities), and commercial settings (eg, restaurants, food distribution and vending, and catering). NDTRs:

- Develop, direct, manage, and supervise departments, units, programs, or businesses providing food, supplies, equipment, foodservice, and related services to individuals, groups, and the public, where job specifications recognize the NDTR credential as a qualification along with

relevant skill sets, knowledge, experience, and demonstrated competence.

- Supervise, manage, or direct foodservice operations; food, supplies, and equipment procurement; meal service, food safety and sanitation, quality improvement projects, financial and budget management, technology, emergency preparedness and management, and kitchen design and redesign.
- Monitor compliance with all applicable local, state, and federal regulations, statutes, and policies in addition to accreditation organization standards.
- Develop menus for populations served by the foodservice operation; work in collaboration with an RDN for populations with special needs or addressed in regulations, for example, health

care, schools, child and adult day care, corrections, and senior meal programs.

Global Health

NDTRs are humanitarians working in foreign countries, following the foreign country's policies, laws, and regulations, with the objective of influencing food, nutrition, and the health of the population. NDTRs:

- Educate individuals and groups on global health issues related to nutrition using resources, such as the Academy Foundation's International Resources and Opportunities (<http://eatrightfoundation.org/international-resources-and-opportunities>), the Academy's Global Food and Nutrition Resource Hub (<http://www.eatrightpro.org/resources/practice/practice-resources/international-nutrition-pilot-project>), and the International Confederation of Dietetic Associations (<http://www.internationaldietetics.org>).
- Advocate for local and federal nutrition and health policy in America and foreign countries.
- Assist during health and nutritional crisis.
- Demonstrate respect and sensitivity to the local culture.

How do NDTRs know whether they can work independently from an RDN?

If the NDTR can answer Yes to questions noted in the Quality Management Practice Tips: NDTRs and Autonomy and no barriers are identified.⁶

Some questions the NDTR can ask himself or herself are:

1. With the education and training to perform the activity, am I actually competent? Has my competence been evaluated and documented in my personnel file?
2. Does my level of academic preparation (plus any additional continuing education) give me the basis to engage in the activity desired safely and ethically?
3. Does the license, if applicable, or credential(s) I hold permit me to perform this activity or service?
4. Do I need any additional credentials/certificates/certifications to perform the activity? Examples could include food safety, cardiopulmonary resuscitation, fitness instructor, smoking cessation certificate, and certified fitness professional.
5. Do I possess and have the proper documentation of the knowledge, skills, credentials, specialized training, and relevant continuing education required to perform the desired activity?
6. Do I understand the meaning of "individual scope of practice"?
7. Does the state where I work have a practice act for NDTRs?
8. Does this work overlap into another profession's scope of practice, including the RDN and registered nurse, if applicable?
9. Are there any federal or state laws or regulations that impact my ability to perform this activity?
10. Have I investigated my organization's policies, procedures, job description, and applicable practice guidelines?
11. Do I need a personal liability insurance policy to address malpractice and professional liability for the services I wish to perform? (<http://www.eatrightpro.org/resources/membership/member-benefits/discounts-on-products-and-services>)

Management and Leadership

NDTRs serve in all levels of management (eg, supervisor, manager, unit manager, director, and consultant) in organizations, businesses, and corporate settings such as food distribution, group purchasing, wellness/health coaching, association management, and government agencies. Span of managerial responsibilities may include a unit, department, multiple departments, or system-wide operations in multiple facilities. The management practice areas may include health care administration, food and nutrition services, foodservice systems, multidepartment management, business owner, or providing consulting services to an organization seeking a specific product or service. NDTRs:

- Lead people "to achieve a common goal by setting a direction, aligning people, motivating, and give inspiring."⁴²

- Participate in and support the development, implementation, and communication of the organization's strategic plan, mission, and vision.
- Provide training, mentoring, opportunities to give input, and give clear expectations for performance and accountability.
- Identify needs and wants of customers and provide customer-centered services in line with the organization's mission and expectations.
- Comply with all applicable local, state, and federal regulations, statutes, and policies in addition to accreditation organizations.
- Perform and/or manage human resource functions; establish and maintain an operational budget; and develop and lead a quality assurance and performance improvement program consistent with the organization's mission and vision.

Nonpracticing

NDTRs who are not working in the nutrition and dietetics workforce, but are maintaining their credential, are ethically obligated to maintain the minimum competent level of practice as outlined in the SOP in nutrition care and/or SOPP for NDTRs.¹⁴ NDTRs:

- Identify essential practice competencies for their CDR Professional Development Portfolio and obtain relevant continuing professional education to meet certification requirements and licensure requirements, when applicable.
- Obtain or enhance subject matter knowledge to support information sharing and volunteer activities, particularly where experience as an NDTR is a reason for participation or appointment.

Nutrition Informatics

Nutrition informatics is the intersection of information, nutrition, and technology and is supported by the use of information standards, processes, and technology.¹⁶ NDTRs retrieve, organize, store, and optimize food and nutrition information, data, and knowledge for use in problem solving and decision making to increase

patient/client/customer satisfaction, and to improve nutrition and service outcomes and patient/client care. The emergence of electronic health records and personal health records presents opportunities for NDTRs to improve or design software and databases to securely organize and manage health care data.⁴³ NDTRs are employed in foodservice management corporations (eg, in client support or service centers) and business and industry. NDTRs:

- Use technology to develop and oversee recipe and menu management and to conduct nutritional analysis of product ingredients to comply with state and federal regulations for food labels and restaurant menu nutrient analysis.
- Assist with conversion to or maintaining an electronic food and nutrition management system or develop and/or maintain food and product databases that support inventory control, purchasing, production planning, costing, and nutritional analysis of recipes and menus.
- Use electronic information management tools for practice, research, and education consistent with ethics standards and copyright laws for protection of intellectual property when communicating and sharing content created by other entities, such as photos and articles.⁴⁴

Post-Acute, Long-Term, Home, and Palliative Care

NDTRs are employed in skilled nursing facilities and post-acute and long-term care settings, long-term care hospitals, retirement communities, rehabilitation centers, home health care agencies, and hospices. NDTRs support members of the interprofessional health care team that provides palliative and/or end-of-life care to adult, pediatric, and neonatal patients/clients. The physician, RDN, or registered nurse is ultimately responsible for communicating to the patient/client, family, guardians, and advocates the risks/burdens of nutrition intervention options and maintaining clinical ethics awareness involving life-sustaining therapies, such as nutrition interventions.⁴⁵⁻⁴⁷ NDTRs:

- Provide direct patient/client nutrition care. As part of the RDN/NDTR team, NDTRs may conduct nutrition screening and contribute to nutrition assessment, interventions, and monitoring.
- Provide nutrition education to address health maintenance, prevention, or management of medical conditions as directed by the RDN.

Preventive Care, Wellness, and Weight Management

NDTRs are employed in a variety of settings where their responsibilities may include activities that address wellness and disease prevention at any stage of the lifespan. NDTRs may be employed at the corporate level of national weight management companies or at the local level in retail centers/franchises as managers or program staff to discuss nutrition with apparently healthy clients. In addition, NDTRs work in health clubs and fitness centers, or through online nutrition or health coaching services. In these situations, it is incumbent upon the NDTR to seek consultation with, or referral to, an RDN when a client's needs reach the limits of the NDTR's individual scope of practice and statutory scope of practice, if applicable. NDTRs:

- Recognize that nutrition and physical activity interact to improve quality of life.
- Provide normal nutrition guidance (eg, 2015 Dietary Guidelines for Americans,³⁴ ChooseMyPlate.gov³⁵) and physical activity guidance³⁶ to promote health maintenance, and optimal nutrient intake for healthy lifestyles to achieve risk reduction for chronic diseases among individuals without diagnosed medical conditions.

Quality Management

NDTRs lead, manage, and participate in quality assurance, performance improvement, performance measurement, process improvement, quality improvement projects, and quality improvement.¹⁶ NDTRs work in teams within various health care (acute and post-acute), communities and public health, and business settings in the quality and safety area. NDTRs:

- Design and implement outcomes-based initiatives in quality assurance and performance improvement¹⁶ to document outcomes of services and compliance with regulations, policies, and procedures; and monitor and address customer satisfaction.
- Collaborate with RDNs and interprofessional teams on quality improvement projects designed for advancing core measures and established goals.

Research

NDTRs are employed by universities, academic medical centers, and federal government agencies (eg, the National Institutes of Health). NDTRs:

- Provide analytical and statistical support for research programs or other research activities, including collecting data, overseeing foodservice for clinical research centers, designing menus that meet study protocols, and conducting nutritional analysis of recipes, menus, and food intake records of study participants.

School Nutrition

NDTRs are employed in school nutrition programs as staff, managers, and directors at the local, state, and national levels to contribute to healthy school environments.⁴⁸ NDTRs work in sales and distribution supplying products or services to school nutrition operations, and as consultants in school nutrition and wellness in roles consistent with education and training. NDTRs:

- Adhere to US Department of Agriculture Food and Nutrition Service (USDA FNS) guidance and regulations.
- Participate in and may provide leadership in a variety of initiatives supported and sponsored by USDA FNS and in national, state, and local food and nutrition organizations and alliances.
- Consult with an RDN for school-based therapeutic and special diet requests for students with health problems or medical conditions.

Sports Nutrition and Dietetics

NDTRs are employed in health clubs and community wellness/fitness

centers to discuss normal nutrition and physical activity. NDTRs:

- Provide information and education on the Physical Activity Guidelines for Americans.³⁶
- Educate apparently healthy clients of all ages and abilities regarding relationships among food, health, physical activity, and fitness.
- Provide additional guidelines and instruction on sports performance for medically cleared individuals consistent with the parameters of the NDTR's individual scope of practice and additional education, training, and appropriate exercise certification(s).

Sustainable, Resilient, and Healthy Food and Water Systems

NDTRs are advocates for sustainable, accessible, and healthy food and water systems. NDTRs work in community-based organizations (eg, food banks and food pantries), nongovernment organizations (eg, natural resource conservation and farming groups), government (local, state, and federal), foodservice systems management (farm to institution), agribusiness, and farms. NDTRs may serve on food policy councils, sustainability committees, and food gardening groups. NDTRs:

- Promote appreciation for and understanding of food security and resiliency, food safety, food production, and environmental nutrition issues.⁴⁹
- Educate and support policies, systems, and environments that advance sustainable food and water systems related to current and emerging food production, processing, distribution, marketing, retail, and waste management practices.

Telehealth

NDTRs use telehealth in businesses and consulting. NDTRs use interactive electronic communication tools for health promotion and disease prevention. For communication of broad-based nutrition education (eg, general nutrition guidelines for weight management when in a health coach role), NDTRs use the internet, webinars, video-conferencing, e-mail, and other methods of distance communications. NDTRs:

NDTRs operate within the directives of applicable federal and state laws and regulations, policies and procedures established by the by the employer, and designated roles and responsibilities. To determine whether an activity is within the scope of practice of the NDTR, the practitioner evaluates his or her knowledge, skill, and demonstrated competence necessary to perform the activity in a safe and ethical manner. The Academy's Scope of Practice Decision Tool (www.eatrightpro.org/scope), an online, interactive tool, is specifically designed to guide practitioners with this process.

- Use electronic information and telecommunications technology to support an RDN providing long-distance clinical health care; and to provide client support for food or foodservice-related businesses providing products, such as foodservice systems management software.
- Monitor telehealth technologies for Health Insurance Portability and Accountability Act compliance.

Universities and Other Academic Settings

NDTRs with masters or doctoral degrees are faculty in Nutrition and Dietetics Technician Programs, culinary programs, community colleges, colleges, universities, and academic medical centers, and serve as preceptors for nutrition and dietetics technician students in supervised practice programs.

- Develop a curriculum to educate and instruct nutrition and dietetics technician students and others that meets the standards of the organization and appropriate accreditation agencies (eg, ACEND).
- Serve on academic and administrative committees.

NUTRITION AND DIETETICS VISIONING

The Academy of Nutrition and Dietetics Visioning Report 2017: A Preferred Path Forward for the Nutrition and Dietetics Profession envisioned nutrition and dietetics in the next 10 to 15 years.⁵⁰ The Academy is responsible for formalizing an ongoing process to define future nutrition and dietetics

practice. The Academy used a visioning process and identified 10 change drivers, with associated trends, implications, statements of support, and recommendations.⁵⁰ NDTRs will utilize the change drivers as a guide to enhance the profession of nutrition and dietetics and to maintain relevance in the NDTR's nutrition and dietetics practice. The 10 change drivers are:

- aging population dramatically impacts society;
- embracing America's diversity;
- consumer awareness of food-choice ramifications increases;
- tailored health care to fit my genes;
- accountability and outcomes documentation become the norm;
- population health and health promotion become priorities;
- creating collaborative-ready health professionals;
- food becomes medicine in the continuum of health;
- technological obsolescence is accelerating; and
- simulations stimulate strong skills.

For additional information on the visioning process and findings, refer to: <http://www.eatrightpro.org/visioning>.

FUTURE STEPS FOR NUTRITION AND DIETETICS PRACTITIONERS, EDUCATORS, AND STUDENTS

Information on the work of the ACEND Standards Committee is reported monthly, and includes updates as well as responses to questions on the 2017 accreditation standards and the proposed future education model. Learn more at: <http://www.eatrightpro.org/resources/acend/accreditation-standards-fees-and-policies>. Materials on the Future Education Model Accreditation Standards for Associate, Bachelor's, and Graduate Degree Programs and the early adopter demonstration program can be found at: www.eatrightpro.org/FutureModel.

ACEND will be evaluating the demonstration projects that are trialing the new standards. CDR has no plans at present to revise the nutrition and dietetics technician registration eligibility requirements.

SUMMARY

The Revised 2017 Scope of Practice for the NDTR describes the Academy position on the qualifications, competence

expectations, actual and potential roles and responsibilities, and value of practitioners with the NDTR credential. An NDTR's individual scope of practice is developed through entry-level education (Associate's degree with supervised practice or Bachelor's degree and completion of a Didactic Program in Nutrition and Dietetics) and is enhanced over time with varied learning opportunities (eg, advanced degree, continuing professional education, certificates of training, certifications) and practice experiences to support growth and career goals. NDTRs who work in clinical or community nutrition settings assist or consult with RDNs to provide direct nutrition care or population-specific services (eg, senior meal programs, school nutrition services), contribute to the health and well-being of individuals of all ages, and provide quality food and nutrition-related products and services. NDTRs may work in foodservice management where they supervise, manage, and direct operations. Practitioners with the NDTR credential have built upon and expanded their career opportunities into academia and business settings through additional education, skills, experience, and credentials.

This Revised 2017 Scope of Practice for the NDTR is a dynamic document. It will continue to be updated with future revisions reflecting changes in: health care; public health; local, state, and federal regulations; education; technology; sustainability and environmental initiatives; business; and other practice segments impacting NDTR practice. Along with the companion Revised 2017 Standards of Practice in Nutrition Care and Standards of Professional Performance for NDTRs, it serves as the NDTR's practice resource to support career development and advancement, and ethical and competent practice.

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STATEMENT OF POTENTIAL CONFLICT OF INTEREST

No potential conflict of interest was reported by the authors.

FUNDING/SUPPORT

There is no funding to disclose.

ACKNOWLEDGEMENTS

The Academy Quality Management Committee thanks the following Academy organizational units for their assistance with manuscript preparation: Academy Committees and Subcommittees, Academy Dietetic Practice Groups, Accreditation Council for Education in Nutrition and Dietetics (ACEND), Commission on Dietetic Registration (CDR), House of Delegates Leadership Team (HLT), and Nutrition and Dietetics Educators and Preceptors (NDEP).

All members contributed material, reviewed the manuscript, and approved the final product.