Visioning Report 2017: A Preferred Path Forward for the Nutrition and Dietetics Profession

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THE COUNCIL ON FUTURE Practice (CFP) was created as a permanent organized body within the Academy of Nutrition and Dietetics (Academy) responsible for formalizing an ongoing visioning process to define future nutrition and dietetics practice at all levels, and to identify the educational and credentialing needs required for future practitioners and their development.

The CFP is an Academy committee that collaborates with the Accreditation Council for Education in Nutrition and Dietetics (ACEND), the Commission on Dietetic Registration (CDR), and the Nutrition and Dietetics Educators and Preceptors to project future practice needs for the profession of nutrition and dietetics. Future practice, accreditation, credentialing, and education represent the four critical organizational units and segments necessary to produce new practitioners and assist experienced practitioners in advancing their careers.

One of the functions of the CFP is to ensure the viability and relevance of the profession of nutrition and dietetics by engaging in a visioning process to identify the preferred future of the profession. The Council developed a standardized process and guidelines for visioning and futures thinking in 2014, based on a workshop conducted for members of the CFP by futurist Marsha Rhea from Signature i, LLC.[1] The current visioning process focuses on a 3-year program of work (2014-2017) and began with the use of a scanning framework comprising 16 categories reflective of the society's and the profession's future needs and changes.

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METHODOLOGY

In July of 2014, the CFP utilized the scanning framework to identify and prioritize the following five categories for the 2014-2017 visioning cycle (see Figure 1):

- Translating Evidence-Based Research into Practice and Policy;
- Food and Nutrition Systems and Sustainability;
- Workforce Projections;
- Education/Professional Development; and
- Economics/Market Forces.

A Visioning Process Workgroup of the CFP was appointed in 2014 to lead the CFP's efforts in the Visioning Process. The seven-member Workgroup included both current and past members of the Council. The Workgroup identified a preliminary list of change drivers and trends related to the five prioritized scanning framework categories, based on CDR's Workforce Demand Study, *Future Changes Driving Dietetics Workforce Supply and Demand: Future Scan 2012-2022*[2] and ACEND's *Expanded Standards Committee Background Report*.[3] Other Academy units conducting their own visioning also shared their reference lists with the Workgroup, including the Foundation's Future of Food Initiative[4] and ACEND's *Rationale for Future Education Preparation of Nutrition and Dietetics Practitioners*.[3] These lists were reviewed for pertinent references. Also, a systematic review of resources published since 2010 was conducted by the Academy's Knowledge Center based on the five priority categories. Five databases, including Science Direct, Taylor, Cochrane, Ovid, and Web of Science, were searched using general key words and phrases (eg, *wellness* and *health promotion* and *registered dietitians*; *employment trends* and *registered dietitians*; *trends in population health and agriculture* and *registered dietitians*) to identify references pertaining to the five prioritized scanning framework categories. Additional references were identified by reviewing the reference lists of pertinent articles and resources resulting from the systematic review. Finally, the Workgroup reviewed resources available through the World Future Society and selected several references related to the priority categories for review. All of these combined search strategies resulted in a total of 357 references, both internal and external, to the profession of nutrition and dietetics. References identified as pertinent to the five prioritized scanning framework categories by the Visioning Process

Workgroup were reviewed and analyzed by Workgroup members and analysts from the Academy's Evidence Analysis Library. Reviewers identified whether each reference supported any of the preliminary change drivers and trends and noted any new change drivers and trends related to the five priority categories not previously identified. Of the 357 references reviewed, 218 references were used in the development of the *Change Drivers and Trends Driving the Profession: A Prelude to the Visioning Report 2017*[5] and the recommendations for the Visioning Report 2017.

SURVEY #1: PRIORITY SCANNING FRAMEWORK CATEGORIES AND TRENDS SURVEY OF CFP THINK TANK MEMBERS AND EXTERNAL ACADEMY ALLIANCE ORGANIZATIONS

Based on the CFP's standardized process and guidelines for visioning and futures thinking, the Workgroup surveyed members of the CFP's think tank (n=49) and individuals representing external Academy alliance organizations (n=15) in February 2015 to seek their input on priority categories and trends. Individuals identified the top 5 categories from the 16 scanning framework categories and related trends they believed would have the most impact on the future of the nutrition and dietetics profession in 10 to 15 years. A total of 44 responses were received (69% response rate). The results from this survey provided support and helped validate the five categories previously identified as priorities by the CFP.

According to the World Future Society,[6] the most common techniques used in futuring include historical analysis, scanning for trends, trend analysis, brainstorming, visioning, and consulting others. Furthermore, the World Future Society states that most futurist methods strive for objectivity but rely heavily on subjective human judgment. As a result of the Workgroup's literature review, input from CFP think tank members and individuals representing external Academy alliance organizations, and the Workgroup's analysis, synthesis, and evaluation of all sources of information, as well as its collective judgment, 10 priority change drivers and their associated trends were identified. Because there is considerable overlap among many of the categories in the scanning framework, several of the change drivers and trends also overlap and interact, for example, technology is a separate change driver, but it also impacts the genomics and simulations change drivers.

SURVEY #2: CHANGE DRIVERS AND TRENDS SURVEY

A document including the 10 priority change drivers, their associated trends, rationale, and implications, along with a glossary and references, was released to Academy members, CDR-credentialed dietetics practitioners, CFP think tank members, and Academy external organization liaisons on November 12, 2015. An electronic Change Drivers and Trends Survey asking participants to rate each priority change driver and trend on a scale from strongly disagree (1) to strongly agree (4) and to select their top five change drivers (ranking) was conducted through December 17, 2015. Participants were also given an opportunity to submit written comments related to the priority change drivers either individually or as a representative of an Academy organizational unit.

Data on the survey distribution and response rate and information on survey respondents are provided in Tables 1 and 2, respectively; 3.7% of those who received and opened the e-mail communication completed the survey (n=1,786). Eighty-five percent of those who completed the survey were Academy members (n=1,524). Demographic characteristics of the respondents to the Change Drivers and Trends survey were similar to those in the Academy's 2015 Compensation and Benefits Survey,[7] except there were more educators and doctoral degree respondents in the current survey.

Based on the scale from 1 to 4, mean±standard deviation scores for the 10 priority change drivers ranged from a high of 3.68 ± 0.53 (strongly agree) for Food Becomes Medicine in the Continuum of Health to 2.94 ± 0.77 (agree) for Population Health and Health Promotion Become Priorities. Triangulation between two separate data points, the ratings and rankings, was used to further examine the data. Results are shown in Table 3. Based on consistency among ratings and rankings, the top-tier change drivers that emerged included Food Becomes Medicine in the Continuum of Health, Aging Population Dramatically Impacts Society, and Accountability and Outcomes Documentation Become the Norm. However, change drivers in the middle and bottom tiers were also perceived as important by respondents. The lowest mean rating for any change driver approached 3 (agree) and 8 of the 10 change drivers were selected as one of the top 5 change drivers by at least 40% of the respondents. Data were also examined based on age and years in practice and there was only one major difference across these subgroups. Consumer Awareness of Food Choice Ramifications Increases was one of the most frequent change drivers ranked in the top 5 among those with <9 years of dietetics experience (64.7%) and significantly less frequent among those with 10 to 29 years and >30 years of experience (55.2% and 49.7%, respectively; $P<0.001$).

Twelve pages of typewritten comments were submitted in response to the Change Drivers and Trends Survey by individuals and Academy organizational groups; these comments were reviewed by the CFP Workgroup. The Workgroup determined that most of the comments submitted were addressed in the change driver document and utilized these comments when drafting the recommendations for the Visioning Report.

Based on results from the Change Drivers and Trends Survey, input from the CFP, and a thorough review of current Academy organizational unit initiatives, the CFP Visioning Process Workgroup considered implications of all 10 change drivers, and in early 2016 began drafting recommendations for the Visioning Report.

SURVEY #3: SURVEY OF DRAFT RECOMMENDATIONS

The CFP Visioning Process Workgroup initially drafted 31 potential recommendations and five statements of support of Academy ongoing initiatives. The statements of support were developed to avoid duplication of current Academy initiatives. All Academy organizational units, CFP think tank members, and Academy external

Society's Future Needs and Changes	
Demographics • Diversity • Generations • Geographic distribution • Financial and political disparities • Education levels	**Client/Patient Needs, Preferences and Health Education** • Lifestyles • Cultural values • Consumer trends • Health disparities • Health education • Health and nutrition literacy • Personal resources (income)
Food and Nutrition Systems and Sustainability • Food industry • Food systems management • Food and nutrition security • Food safety • Food-related environmental sustainability • Agricultural systems	**Health care** • Health care reform • Coordinated care • Health care delivery systems and models including long-term care and acute care facilities • Alternative medicine/health • Access to primary care • Access to RDNs[a] and NDTRs[b] • Quality care and outcomes

Public Health, Policies and Priorities
• Obesity
• Nutrition and physical activity across the lifespan
• Chronic disease management
• Health promotion and wellness
• Changing the environment/infrastructure to promote healthy lifestyle
	Economics/Market Forces
	• Economic outlook
	• General employment trends
	  ○ Wages
	  ○ Areas for job growth
	• Delivery and payment for nutrition services
	• Public reporting of measureable results for nutrition services

Advances in Medicine, Science, and Technology • Genetics, genomics • Behavioral science • Information communication technologies • Mobile connectivity • Electronic health records	**Global Context** • Nutrition and dietetics practices in other countries • Migration/immigration and global workforce • Global professional collaboration • Trends in population health and agriculture
Profession's Future Needs and Changes	
Education/Professional Development • Integrated didactic education and supervised practice • Knowledge and continuing competence • Education programs and curriculum • Learning technologies and platforms	**Work and Workplaces** • Practice roles • Business models • Emerging opportunities • Competitive providers of nutrition and dietetics services • Work and family balance • Salaries and benefits
Workforce Projections • Supply and demand • Mobility and adaptability • Workplace settings and focus areas • Staffing models and ratios • Retention of RDNs, NDTRs, and dietetics students/interns • Diversity of the workforce	**Practice Requirements** • Evidence-based practice • Business and entrepreneurial skills • Technology use • Education, counseling, and behavior change • Cultural competency • Interprofessional training and proficiency • Practice efficiency methods

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Figure 1. Scanning framework highlighting the five priority categories identified for the 2014-2017 Visioning Cycle by the Council on Future Practice.

Profession's Future Needs and Changes	
Career Advancement and Leadership • Reward and recognition • Leadership and management • Drive and motivation • Mentoring new practitioners	**Advocacy, Credentialing, and Licensure** • Advocating for the profession • Patterns in credentialing in nutrition and dietetics • Competing and related credentials
Translating Evidence-Based Research into Practice and Policy • Research on effectiveness of nutrition services • Opportunities for practitioner/researcher collaborations • New developments in nutrition and health sciences • Informatics and data analytics • Translating research into policy	**Values and Ethics** • Evidence-based nutrition • Social responsibility • Personal integrity and professionalism
[a]RDNs=registered dietitian nutritionists. [b]NDTRs=nutrition and dietetics technicians, registered.	

Figure 1. *(continued)* Scanning framework highlighting the five priority categories identified for the 2014-2017 Visioning Cycle by the Council on Future Practice.

organization liaisons were sent a Survey of Draft Recommendations to obtain their feedback on the value of the 31 potential recommendations in meeting future practice needs of the profession in spring 2016. Participants were asked to indicate whether each of the 31 recommendations met each of the following six criteria by providing a yes or no response:

- increases the value of the registered dietitian nutritionist (RDN) and nutrition and dietetics technician, registered (NDTR);
- increases the reach and influence of the RDN and NDTR;
- responds to new practice needs for the profession of nutrition and dietetics;
- empowers Academy members to be visionary leaders and innovators for the profession;
- meets emerging marketplace needs; and
- identifies educational or credentialing needs required for future practitioners and their development.

Participants were also asked whether the recommendation had the potential to cause harm or unintended consequences to the Academy, its divisions, members, and the public, and if so, to explain how and why. The last section of the survey gave participants an opportunity to provide comments and suggest additional recommendations related to the 10 change drivers. The survey closed on May 31, 2016, and survey responses were analyzed using both quantitative and qualitative methods.

Forty-one organizational units responded to the Survey of Draft Recommendations, with an additional 37 individuals responding on behalf of an organizational unit. The 37 individual responses were then categorized by their organizational unit and combined with the initial 41 organizational unit responses for a total of 47 organizational unit responses. Percentages representing the number of people or groups that indicated the recommendation met all six criteria were calculated. Results revealed that 28 of the 31 recommendations reached $\geq$80% consensus for meeting all six criteria, suggesting support for the majority of the recommendations. The three remaining recommendations reached a consensus between 70% and 74%.

The CFP Visioning Process Workgroup reviewed the 318 written comments from the Survey of Draft Recommendations, which were analyzed and categorized into 18 themes by Academy staff. Workgroup members agreed to decrease the number of recommendations to make their implementation more feasible. Upon further review of the comments and themes, six themes were identified as a way to help prioritize and potentially eliminate recommendations:

- not within the Academy's purview;
- concerns over financial burden and return on investment;
- burden outweighs benefit;
- recommendation solves a current problem not a vision or solution to a future problem;
- disagree with value of the recommendation; and
- dilution of RDN credential/blurring of professional lines.

Those recommendations where >10% of the comments fell under any one of these six themes were first evaluated for potential elimination. After additional review of both the quantitative and qualitative data, Workgroup members determined by consensus which draft recommendations to eliminate, retain, consolidate, and/or modify and edit. This process resulted in 12 recommendations and seven statements of support for Academy ongoing initiatives for the 2017 Visioning Report.

Table 1. Response rate to the Council on Future Practice's Change Drivers and Trends Survey conducted in November 2015 among Academy members and Commission on Dietetic Registration credentialed professionals

	E-mailed, n=94,353	Opened e-mail n=47,749
Began survey	3,253 (3.4%)	3,253 (6.8%)
Completed survey	1,786 (1.89%)	1,786 (3.7%)

RESULTS: CHANGE DRIVERS, TRENDS, AND RECOMMENDATIONS FOR THE NUTRITION AND DIETETICS PROFESSION

The CFP's 2014-2017 visioning process resulted in 10 priority change drivers, their associated trends (Figure 2) and implications, 12 priority recommendations, and seven statements of support for Academy ongoing initiatives. The recommendations were written to address information in the document, *Change Drivers and Trends Driving the Profession: A Prelude to the Visioning Report 2017*[5] (available on the Academy of Nutrition and Dietetics website at: www.eatrightpro.org/visioning), which was informed by input from Academy members, CDR credentialed dietetics practitioners, Academy organizational units, CFP think tank members, and Academy external organization liaisons. The recommendations are not intended to be all-inclusive, but rather specific, actionable items that can be pursued in the next 10 to 15 years to advance the profession of nutrition and dietetics. Each recommendation may address multiple change drivers, but is most closely aligned with the one change driver noted in the next section, based on consensus among Workgroup members. The change drivers, their trends, implications, recommendations, and statements of support are listed in no particular order and are all important forces impacting the profession of nutrition and dietetics.

CHANGE DRIVER: AGING POPULATION DRAMATICALLY IMPACTS SOCIETY

Exponential Growth of the Aging Population Has Dramatic and Wide-Ranging Ramifications and Economic Impacts on Government, Businesses, Families, and Health Care and Support Services

Rationale. Since 2011, when the first baby boomers turned 65 years old, approximately 10,000 Americans turn 65 each day.[8] From 2010 to 2030, the population of those 65 years and older in the United States will swell from 13% to >20% as life expectancies, especially at the older ages, continue to increase.[9] These population trends are projected to escalate the prevalence of chronic disease[10] and functional and cognitive challenges and create a health care cost crisis.

Table 2. Credential and Membership Status of Survey Completers (n=1,786) of Change Drivers and Trends Survey conducted in November 2015 among Academy members and Commission on Dietetic Registration credentialed professionals

	Academy Membership Status		
Credential Status	**Member**	**Nonmember**	**Total**
Credentialed	1,436 (80.4%)	236 (13.2%)	1,672 (93.6%)
Noncredentialed	66 (3.7%)	18 (1.0%)	84 (4.7%)
Did not indicate whether credentialed or not	22 (1.2%)	8 (0.5%)	30 (1.7%)
Total	1,524 (85.3%)	262 (14.7%)	100%

Increasing rates of obesity and chronic diseases among older adults dramatically impact the health care system and the economic burden of disease. The risks for preventable chronic diseases and disability increases with age.[2] Almost 3 out of 4 older adults[11] and 2 out of 3 Medicare beneficiaries have multiple chronic conditions.[12] Treatment for Americans with one or more chronic conditions consumes 86% of health care spending.[13] Disease prevention and health maintenance for the aging population are increasingly the focus for improving quality of life and containing costs. Better nutrition and physical and mental activity can prevent many chronic diseases,[2] yet many older adults are food insecure, and 83% do not consume a good-quality diet.[14]

The ratio of working-age (18 to 64 years) people to retirees will decrease dramatically and strain national resources.[8] Currently, 100 working-age people support every 19 people aged 65 to 84 years old, but this ratio will change to 100:30 by 2028; 33 working-age people currently support each person older than 85 years compared with 13:1 in 2046.[9] Businesses and health professions will be impacted dramatically as older adults retire or alter their work lives.[2] The nutrition and dietetics profession is continuing to age (2015: median age of 49 years; 35% were 55 or older;[7] 2005: median age of 44 years; 15% were 55 or older),[15] and the anticipated attrition rate of 2% to 5% will impact the future supply of nutrition and dietetics practitioners.[2]

Implications.

- Demonstration of the value/cost-effectiveness of evidence-based nutrition care in the prevention, treatment, and management of malnutrition and chronic disease in older populations is essential.[3,10,14]
- Training in geriatric nutrition and a variety of geriatric care specialties to support optimal health and improve health outcomes for a diverse aging population in a variety of settings is needed.[2]
- As the ratio of working-age people to retirees decreases, the resources of the country may

Table 3. Rankings and ratings of the 10 change drivers from the Change Drivers and Trends Survey conducted in November 2015 among Academy members and Commission on Dietetic Registration credentialed professionals[a]

Change drivers	Ranking %[b]	Mean rating[c]±standard deviation
Top Tier		
Food Becomes Medicine in the Continuum of Health	77.6	3.68±0.53
Aging Population Dramatically Impacts Society	69.9	3.61±0.55
Accountability and Outcomes Documentation Become the Norm	57.4	3.43±0.61
Middle Tier		
Population Health and Health Promotion Become Priorities	58.5	2.94±0.77
Consumer Awareness of Food Choice Ramifications Increases	56.6	3.23±0.68
Embracing America's Diversity	42.6	3.42±0.61
Technological Obsolescence Is Accelerating	40.6	3.49±0.57
Bottom Tier		
Creating Collaborative-Ready Health Professionals[d]	47.0	3.37±0.61
Tailored Health Care to Fit My Genes	37.7	3.11±0.71
Simulations Stimulate Strong Skills	12.1	3.05±0.65

[a]Change drivers are presented in descending order of mean ranking.
[b]Percent of respondents selecting the change driver in top 5.
[c]Mean ratings based on a scale from 1 (strongly disagree) to 4 (strongly agree).
[d]This change driver is in the bottom tier because of its low mean rating, even though its ranking percentage is higher than some middle tier change drivers.

shift from education to health and caregiving to meet the needs of the older adult population.[8]
- An adequate supply of RDNs and NDTRs is needed to address the impact of an older workforce and anticipated rate of attrition, including retirement.[2]

Recommendations.

- The CFP recommends the Academy implement strategies to increase workforce capacity for the nutrition and dietetics profession to address workforce projections, including the recommendations in the 2011 Dietetics Workforce Demand Study, as well as ongoing workforce projections.
- The CFP recommends the Academy evaluate existing strategies (eg, current online certificate of training programs in leadership and executive management, mentoring programs) to equip Academy members to fill leadership roles in key influential and visible positions in order to address workforce projections and positions vacated by retirees.

CHANGE DRIVER: EMBRACING AMERICA'S DIVERSITY

Increasing Racial and Ethnic Diversity of the US Population Requires Innovative Solutions to Improve Health Equity, Health Literacy, Cultural Competency, and the Diversity of Nutrition and Dietetics Practitioners

Rationale. The racial and ethnic background of the US population has shifted dramatically during the past $1^1/_2$ decades and continues to undergo a transformation.[16] Hispanic and Asian populations have experienced the most significant growth, and this trend is expected to continue through 2060.[16-18] By 2044, >50% of the US population is expected to belong to a minority group.[16] Despite the changing US population, the percentage of RDNs who are men, black, Asian, or Hispanic changed very little from 2002 to 2011, including the most recent registrants (first 5 years).[19]

Health equity is an increasingly important public health priority because of evolving US racial and ethnic demographics. Health disparities continue to exist and some have even widened among certain populations, despite decades of work to eliminate them.[20] Interventions that remove barriers to timeliness, emphasize patient-centered care, and promote equitable use of evidence-based guidelines may promote health equity gains.[21] The Patient Protection and Affordable Care Act (ACA) aims to advance health equity by reducing health insurance disparities, improving access to providers, promoting increased workforce diversity and cultural competence, and ensuring that limited English proficiency individuals receive resources to communicate more effectively with health care providers.[22,23]

Under-represented groups are more likely to access nutrition and other health care services from professionals who they perceive to be similar to them.[10] Community health workers and other lay educators will continue to be used to reduce health disparities and as a solution to the lack of diversity in the health care workforce.

Implications.

- RDNs and NDTRs should be culturally competent to interact effectively and appropriately in the workplace with patients/clients, peers, managers, and

Change Drivers	Associated Trends
Aging Population Dramatically Impacts Society	• Increasing rates of obesity and chronic diseases among older adults dramatically impact the health care system and the economic burden of disease. • Demand for health care services is increasing dramatically although fewer funds are available to cover the cost. • Disease prevention and health maintenance for the aging population are increasingly the focus to improve quality of life and care and contain costs. • An aging workforce impacts the economy, businesses, families and health professions.
Embracing America's Diversity	• Community health workers and other lay educators will continue to be used to reduce health disparities and as a solution to the lack of diversity in the health care workforce. • As the US population grows more diverse, stark differences between what health providers intend to convey in written and oral communications and what patients understand may increase and further exacerbate health disparities. • Health equity is an increasingly important public health priority because of evolving US racial and ethnic demographics.
Consumer Awareness of Food Choice Ramifications Increases	• Agricultural challenges and rapidly changing technology present entrepreneurial opportunities as food companies seek innovative ways to meet consumer demand for healthy foods and demonstrate their social responsibility. • Siloed approaches to agriculture, health, sustainability, and economics are being abandoned for transdisciplinary solutions to reduce hunger, poverty, disease, and environmental destruction. • There is a growing interdependence of countries around the world in sustaining the planet's national resources. • Consumers demand increasing levels of food transparency to meet their health, social justice, and environmental stewardship aspirations.
Tailored Health Care to Fit My Genes	• Advances in research and increased demand for personalized health and nutrition result in increased availability and decreased costs of genetic testing. • Health professionals increasingly manage patient care using genetic profiles but the science of genetics must continue to advance to inform practice.
Accountability and Outcomes Documentation Become the Norm	• Health care evolutions necessitate increased research and quality improvement activities. • The application of informatics facilitates and optimizes the retrieval, organization, storage, and use of data and information for decision-making. • Practicing RDNs[a] do not regularly evaluate and conduct research or access evidence-based resources for guidance in clinical practice.
Population Health and Health Promotion Become Priorities	• Evidence-based and multifactorial interventions that access levels of influence at the policy, systems, and environmental level of the social ecological framework are essential to address population health priorities. • Institutions, organizations, and governments are increasingly striving for policy changes that are informed by research, help create a culture of health, and make healthy choices the easy choices. • The ACA[b] paves the way for tremendous growth and unprecedented opportunities in workplace health promotion and disease prevention interventions. • Hospitals redefine their roles in the continuum of health care services and become immersed in the daily culture of the communities they serve.

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Figure 2. Ten priority change drivers and their associated trends for the Council on Future Practice's 2014-2017 Visioning Cycle.

Change Drivers	Associated Trends
Creating Collaborative-Ready Health Professionals	• Transdisciplinary professionalism is becoming an essential ideology for a 21st century health care system. • IPE[c] is an increasingly essential strategy for preparing the health care workforce for a patient-centered, coordinated and effective health care system. • A resurgence of interest in IPE has occurred with the goal of team-based care becoming the norm in health care. • Many difficulties and challenges exist to the successful implementation of IPE but innovative approaches can help overcome some of the challenges.
Food Becomes Medicine in the Continuum of Health	• Innovations by food and nutrition-related industries are capitalizing on consumer's growing passion for nutrition and health. • Unprecedented opportunities to lead preventive aspects of health arise from health care reform and emerging models of health care. • Nutrition and MNT[d] are poised for primetime with the high prevalence of obesity and its related diseases.
Technological Obsolescence is Accelerating	• Innovative digital technologies personalize, revolutionize, and increase access to health care. • Technological applications, economics and student demands disrupt traditional educational institutions. • Technological advances impact work settings and change how, when, and where people work. • The digital age is transforming next-generation food systems.
Simulations Stimulate Strong Skills	• Simulations help address increased complexity of health care, higher patient acuity levels, and patient safety. • Accountability of care, pay for performance, and financial penalties for provider errors spur interest in simulations. • The use of simulations increases in response to cost-cutting in higher education and reduction in the availability of clinical placements for students. • The desire to improve critical thinking skills of learners drives the development and use of simulations.

[a]RDNs=registered dietitian nutritionists.

[b]ACA=Patient Protection and Affordable Care Act.

[c]IPE=interprofessional education.

[d]MNT=medical nutrition therapy.

Figure 2. *(continued)* Ten priority change drivers and their associated trends for the Council on Future Practice's 2014-2017 Visioning Cycle.

subordinates from different ethnic and racial groups.
- New and innovative ways to recruit and retain minority and underrepresented students in nutrition and dietetics programs are needed.[24,25]
- There is a need for increased language skills among RDNs and NDTRs, with fluency in Spanish, French, and Cantonese being sought most frequently.[19]
- The growth of community health workers presents an opportunity for RDNs and NDTRs to supervise and educate these practitioners.

Statement of Support for Academy's Ongoing Initiatives.

- The CFP supports the Academy's Diversity Committee in its efforts to increase diversity within the profession as stated in objective #2 of the Diversity Strategic Plan: Objectives and Tactics 2015-2020: Build an effective program of community outreach to identify and attract students from groups traditionally underrepresented in the nutrition and dietetics profession (including race, ethnicity, and sex).

CHANGE DRIVER: CONSUMER AWARENESS OF FOOD CHOICE RAMIFICATIONS INCREASES

The Public Seeks More Information About Their Food Across the Entire Supply Chain and Has Increased Awareness of the Global Ramifications of Their Food Choices

Rationale. A growing social movement is underway where consumers desire an increased connection to food and nature.[2,3,26,27] Today's consumers seek transparency on how, where, and

by whom their food is grown, processed, packaged, and distributed, and how revenues from their purchases are allocated.[28,29] Recent studies indicate public support, including support among racial minority and lower-income groups, for organic, local, non–genetically modified, and nonprocessed food.[30,31] Local food sales have increased from $5 billion in 2008 to $11.7 billion in 2014,[32] and are expected to outpace total food and beverage retail sales over the next 5 years to reach $20 billion in 2019.[33]

Increased public interest in the US food supply is accompanied by global concerns over the world's growing population, which is slated to reach 9 billion by 2050.[34,35] Concurrently, the risk of climate change, high amounts of food waste, and high-yield gaps underscore the need to produce more food using the same amount of land and fewer inputs.[35-37] Greater urbanization,[35,38] growing international trade,[39] and planet-wide ramifications of poor environmental stewardship require a global approach to food and agricultural systems.[38,40,41]

Agriculture is a major contributor to greenhouse gas emissions[36,42,43] and water constraints.[36,44] If current dietary trends hold, they are projected to create an 80% increase in global greenhouse gas emissions and global land clearing, while simultaneously contributing to high rates of chronic disease.[45] Globally, about 70% of the total water that is withdrawn from surface water and groundwater is used for irrigation,[46] and there are growing concerns about agricultural pesticides and herbicides contaminating the water supply through leaching, runoff, and spray drift.[29,47,48] In response, increasing numbers of consumers are likely to adopt sustainable diets.[49]

Implications.

- Future-focused dietary interventions will encompass ways to improve the health of the planet, including food waste reduction and consumption of foods that minimize greenhouse gas emissions and promote water conservation.[44,50,51]
- RDNs and NDTRs need education on food systems production practices and policies and should play a key role in educating the public about the relationships among diet, environment, and public health.[52]
- Food-sector jobs across all parts of the supply chain will increase, creating opportunities for food business entrepreneurs to utilize their education and leadership skills to create high-paying jobs.[53]
- To capitalize on jobs created by the local food movement, RDNs and NDTRs need to understand agricultural systems and how diet choices influence local economies.

Statement of Support for Academy's Ongoing Initiatives.

- The CFP supports the Academy's Second Century initiative, including the Nutrition Impact Summit, and opportunity areas on increasing food resilience through the integration of nutrition expertise with local and global agricultural practices and food systems, and on building capacity by expanding training in food systems throughout the continuum of education for NDTRs and RDNs.

CHANGE DRIVER: TAILORED HEALTH CARE TO FIT MY GENES

Continuing Research and Advances in Genetics and Nutritional Genomics, with Their Ability to Predict, Prevent, and/or Delay Illnesses and Chronic Diseases, Will Become the Mainstay of Health Care in the Future

Rationale. Genetics research continues to accelerate, resulting in exponential advances in medicine and medical knowledge.[8] Ray Kurzweil,[54] a technology specialist, predicts that the future holds the promise of routinely adding genes that are protective and disabling genes that promote diseases and aging. Genetic testing for diseases for which tests are not currently available will become more readily available, making predictive, preventive, early detection, and personalized interventions, including personalized nutrition and lifestyle interventions, possible.[2] Consumers want to learn about their individual risks for future illnesses to promote their health and prevent disease. Consumers look to Direct to Consumer genetic testing, which has become increasingly available, as a means of predicting risk of disease.[55] RDNs can assume an increasingly important role in the emerging health care system that focuses on a genetic predisposition model of health and disease,[56] disease prevention, and integrative health care,[3] with the possibility of receiving reimbursement for lifestyle and nutrition interventions and counseling.[2]

Implications.

- Medicine is moving toward tailoring treatments to individual genetic, environmental, and behavioral characteristics to improve patient responses. Advances in nutritional genomics offer the promise of personalized nutrition and unprecedented opportunities for the RDN, including reimbursement for nutrition and lifestyle interventions.
- The emerging genetic predisposition model of health and disease can position the RDN as a major force in health care.[56] Designing nutrition interventions that incorporate a patient's/client's genetic profile is a task appropriate for specialists and advanced practice RDNs.[57]
- RDNs working in the area of nutritional genomics within interprofessional teams will need the scientific knowledge and technical skills to interpret genetic testing and to provide personalized nutrition advice that prevents or modifies disease risk. Specialized and advanced knowledge and skills are needed for RDNs to work in the area of nutritional genomics.[2,56-58]
- RDNs function within and collaborate with interprofessional teams[59] to interpret genetic testing results and develop personalized nutrition care plans.[58] RDNs may assume

primary management of patients when food and nutrition are the primary intervention.[60]

Recommendation and Statements of Support for Academy's Ongoing Initiatives. The change driver on genetics and nutritional genomics is addressed in the following recommendation and two statements of support for the Academy's ongoing initiatives by use of the terminology *emerging areas of practice* and *10 change drivers*:

- The CFP recommends the Center for Lifelong Learning collaborate with Dietetic Practice Groups and Member Interest Groups to create additional professional development opportunities related to the 10 change drivers from *Change Drivers and Trends Driving the Profession: A Prelude to the Visioning Report 2017*[5] and develop additional online certificate of training programs, which include integrated research modules, in emerging areas of practice to update and advance nutrition and dietetics-related knowledge and skills.
- The CFP supports ACEND in incorporating emerging areas of practice into standards and competencies of the curricula for nutrition and dietetics education programs.
- The CFP supports CDR in incorporating competencies related to emerging areas of practice into the Essential Practice Competencies for the CDR's Credentialed Nutrition and Dietetics Practitioners.

CHANGE DRIVER: ACCOUNTABILITY AND OUTCOMES DOCUMENTATION BECOME THE NORM

Increased Emphasis on Evidence-Based Practice and Accountability for Documenting Beneficial and Cost-Effective Outcomes Become the Norm in Health Care

Rationale. Health care costs in the United States have been rising in part due to the aging of the population and prevalence of chronic disease.[61,62] According to the Institute of Medicine, there is a "need for evidence about what works best for whom in order to inform decisions that lead to safe, efficient, effective, and affordable care."[63] The Institute of Medicine has set a goal that by "…2020, 90% of clinical decisions will be supported by accurate, timely, and up-to-date clinical information and will reflect the best evidence."[63]

In addition, current and emerging health care delivery models are driving the demand for utilization of research as the basis for policy development.[63-67] The ACA aims to rein in health care costs and improve quality of care and outcomes through accountable care organizations, Patient-Centered Medical Homes, value-based purchasing, Centers for Medicare and Medicaid Services financial penalties for hospitals with high readmission rates and no payment for "never events," such as hospital-acquired pressure ulcers.[68]

Practicing RDNs do not regularly evaluate and conduct research or access evidence-based resources for guidance in clinical practice.[69,70] Approximately 50% of RDNs consult evidence-based resources and read professional journals less than once a month.[69] Perceived barriers to research include lack of confidence, expertise, skills, time, funding, and administrative support.[70] RDNs are more likely to engage in research activities when they are knowledgeable about evidence-based practice, possess a higher level of education, have taken a research course, and frequently read research articles.[70]

Implications.

- Organizations increasingly rely on data and outcomes to drive decisions about priorities, including how and where their limited resources are utilized.
- RDNs require the necessary skills to read, interpret, and apply research in their practice settings; conduct outcomes research; and utilize informatics to enhance their ability to show positive outcomes. Outcomes research is especially vital for the survival and advancement of the nutrition and dietetics profession and should be routinely conducted by RDNs.[70]
- RDNs must promote their unique role in the identification, promotion, and documentation of how nutrition interventions are cost-effective, lead to cost reductions/savings, and improve outcomes (clinical and patient-centered) to facilitate adoption of effective interventions into institutional and/or public policies.[71-74]
- RDNs must be adept at identifying, treating, and documenting malnutrition to ensure positive patient outcomes and reimbursement for health care facilities to cover the costs of caring for malnourished patients.
- Organizations and RDNs with data and outcomes to support their interventions and validate their professional contributions are more likely to receive reimbursement and other funding in the current and future environment of limited health care dollars.

Recommendations and Statement of Support for Academy's Ongoing Initiatives.

- The CFP recommends the Academy identify strategies to increase the number of doctoral-prepared RDN educators and practitioners to create a culture of research and evidence-based practice within the profession and address the 2024 graduate degree requirement for entry-level RDNs.
- The CFP recommends CDR require all credentialed dietetics practitioners to obtain continuing professional development in evaluation and documentation of nutrition and fiscally responsible outcomes tailored to their area of practice to demonstrate the value of the profession.
- The CFP supports the Academy's continuing efforts with the US Department of Health and Human Services' Health Resources and Services Administration to include RDNs as essential health providers within the Bureaus of

Health Workforce and Primary Health Care.

CHANGE DRIVER: POPULATION HEALTH AND HEALTH PROMOTION BECOME PRIORITIES

Health Care in the United States Increasingly Focuses on Population Health to Improve Effectiveness and Reach and Slow the Growth of Health Care Costs

Rationale. Transformative change to improve the health of populations and reduce health care costs is underway in the United States.[75] Forces converging to bring a national focus to population health include the ACA, aging of the US population, and surge in nutrition-related chronic conditions.[75,76] The ACA promotes population health by its focus on better care, better health, and lower costs.[10,75] A culture change is revolutionizing institutions as they move beyond wellness programs to engage people at every level of their organizations in shifting their focus toward health promotion and disease prevention and creating a culture of health as part of their daily practices.[77] Hospitals are playing a central role in creating a culture of health[75,77] and are natural leaders for workplace and community-wide health promotion interventions due to their mission, reach, and influence; hospitals can adopt model policies and practices that promote the health of both their employees and patrons.[77] Even the institutional kitchen is now at the forefront of an institution's wellness mission.[78] Some hospitals serve between several thousand and up to 1 million meals per year to employees, patients, and visitors, with each meal representing an opportunity to promote a healthy choice.[77] People spend time in schools, workplaces, food outlets, neighborhoods, and communities, which are all important targets for policy-, systems-, and environmental-level interventions as part of a social ecological, comprehensive population health approach.[10,79]

Implications.

- More RDNs and NDTRs must position themselves for new and expanded practice roles to address policy-, systems-, and environmental-level interventions based on the social ecological model.[10]
- The profession should adjust training models to reflect emerging areas of practice in health promotion in community settings where people live, work, and play.[80,81]
- RDNs need skills to track effects and evaluate policy change initiatives designed to address the underlying causes of environments that foster poor dietary intake.[77,82]
- Sustained engagement in advocacy and public policy is essential to champion RDNs as qualified providers of population health interventions.[83,84]
- Nutrition is a key component of workplace health promotion; RDNs and NDTRs have unique qualifications to practice in these settings.[10,85,86]

Recommendation.

- The CFP recommends the Center for Lifelong Learning and the Committee for Public Health/Community Nutrition provide professional development opportunities for current nutrition and dietetics practitioners to increase their understanding and application of public health principles and population health to promote behavior change, extend their reach, and influence policy for the optimal health of communities.

CHANGE DRIVER: CREATING COLLABORATIVE-READY HEALTH PROFESSIONALS

Transdisciplinary Professionalism and Interprofessional Education Are the Cornerstones of Patient-/Client-Centered Care to Help Solve Problems, Improve Safety and Quality, and Drive Innovation

Rationale. The Institute of Medicine published three seminal publications beginning in 1999 that focused on health care quality, patient safety, and their relationship to health professions education.[87-89] These publications, along with the Institute for Healthcare Improvement's 2008 "triple aim" of better care, better health, and lower costs,[90] provided a major impetus and urgency for rethinking team-based care and interprofessional relationships, and restructuring health professions education.[91] The ACA reflects the triple aim and is responsible for the resurgence of interprofessional education (IPE).[89] IPE and collaborative practice are keys to transitioning a fragmented health system to one capable of improved health outcomes.[92] IPE informs a pedagogy and curricula redesign for preparing a new health care workforce capable of optimizing health system performance in a collaborative-ready, shared decision-making model.[93] All health professions should integrate IPE into their curricula to prepare practitioners for interprofessional practice with the knowledge and skills to be effective 21st-century members of the health care team. Professions that remain uninformed, outdated, and static are at risk of being left behind. IPE offers RDNs a significant advantage in securing a place at the "health care table."

IPE goals are to deliver patient-centered care that is safe, timely, efficient, effective, and equitable.[94] IPE helps develop the knowledge, skills, and attitudes for a reformed, "collaboration-ready" health workforce.[92,93] "Interprofessional health care teams understand how to optimize the skills of their members, share case management, and provide better health services to patients . . .."[92] For health care professionals to work interprofessionally, they must be educated interprofessionally.[92]

Implications.

- Nutrition and dietetics practitioners need sufficient IPE literacy and leadership skills to join and lead teams where nutrition plays an important role.[2]
- Dietetics educators should embrace innovative ways to incorporate IPE into their programs (eg, simulations and web-based resources, health fairs, and student-run clinics).[95]
- Engaging in IPE is an opportunity to actively promote a broader understanding and appreciation of the RDNs' role and how it differs from someone providing general nutrition advice; RDNs

need to be "at the table" now to be recognized and included as an essential interprofessional health team member, particularly as one payment for services continues to be the direction of future reimbursement.[65]
- Well-designed studies to determine how IPE affects patients, populations, and health system outcomes are needed.[95,96]

Recommendation and Statement of Support for Academy's Ongoing Initiatives.

- The CFP recommends the Academy continue to increase its visibility and influence in national efforts related to interprofessional education and practice and enhance innovative continuing professional development in this area in collaboration with other health care professionals to promote and advance the role of RDNs as essential health care providers.
- The CFP supports the Academy's, Nutrition and Dietetics Educators and Preceptors,' and ACEND's advocacy work for inclusion of nutrition and dietetics practitioners in interprofessional education and practice, including ACEND's 2017 Standards for interprofessional practice as a core component of nutrition and dietetics education programs.

CHANGE DRIVER: FOOD BECOMES MEDICINE IN THE CONTINUUM OF HEALTH

Nutrition and Medical Nutrition Therapy Become Even More Critical in Current and Future Emerging Health Care Models for Their Pivotal Roles in Wellness, Health Promotion, Disease Prevention, and Disease Management

Rationale. The public's explosion of interest in nutrition and wellness is transforming food retailers who are positioning themselves as health care destinations.[97] As health care is disrupted and transitions from the medical model to one of prevention and wellness, nutrition is poised to take center stage in health-promotion and disease-prevention programs in community-based settings.[10,82,86] Forces that are converging to position nutrition and medical nutrition therapy as indispensable to health and well-being include the prevalence of obesity and its comorbidities, especially among younger adults; the large human and financial burdens and costs of diseases associated with obesity and an aging population; and the recent revelation that poor diet is the biggest contributor to early death globally.[98] Lifestyle risk-factor modification and weight management are essential components of health promotion and disease prevention programs in worksites, schools, community clinics, health clubs, social service programs, and other community settings.[10]

A transformation in health care is underway, with primary care leading the way, and the concepts of prevention, wellness, and public health growing in popularity.[86] There are unprecedented opportunities to lead preventive aspects of health due to health care reform and emerging models of health care. The emerging patient-centered medical home model of care includes acute and chronic care and preventive nutrition-related services, but few RDNs are integrated into and valued members of the Patient-Centered Medical Home team.[67]

Consumers are actively using foods as medicine to address their health concerns and medical conditions.[83] Food and nutrition-related industries are capitalizing on consumers' growing passion for nutrition and health and are overhauling products to cater to consumers' desires for safe and healthy foods.[80] Food retailers are increasingly investing in health and wellness; 70% of those surveyed perceive health and wellness programs as a significant growth opportunity and envision pharmacists and RDNs as taking the lead.[97] Supermarket RDNs are increasing in numbers and can impact public health by reaching millions of shoppers.[99]

Implications.

- Food-sector jobs may increase in food and nutrition-related industries to support the public's interest in nutrition and healthier lifestyles and meet the ACA mandates for nutrition labeling on restaurant menus and vending machines.[2,10]
- RDNs must be proactive in promoting nutrition and positioning themselves as an essential and valued part of Patient-Centered Medical Homes and other emerging models of health care.
- Increased encroachment and competition in the areas of wellness, health promotion, and disease prevention may occur due to explosion in the number of nutrition-related credentials and lack of regulatory standards.[100]
- Adjustments in educational models and credentials to reflect emerging areas of practice, such as wellness and health promotion, may be necessary to remain competitive in the changing health care environment.[80]

Recommendations and Statements of Support for Academy's Ongoing Initiatives.

- The CFP recommends the Center for Lifelong Learning collaborate with Dietetic Practice Groups and Member Interest Groups to create additional professional development opportunities related to the 10 change drivers from *Change Drivers and Trends Driving the Profession: A Prelude to the Visioning Report 2017*[5] and develop additional online certificate of training programs, which include integrated research modules, in emerging areas of practice to update and advance nutrition and dietetics-related knowledge and skills.
- The CFP recommends the Academy promote collaboration among Dietetic Practice Groups and commit additional resources to position RDNs and other CDR credentialed practitioners, consistent with their scope of practice, as local and global leaders in the prevention, reduction, assessment, and management of malnutrition across all practice settings by increasing training in nutrition risk screening, including nutrition-focused physical examinations, and by influencing public policy,

regulatory agencies, and other health care practitioners.
- The CFP recommends the Academy develop a standing group of member experts to advise the Academy on controversial topics in an evidence-based and timely manner to increase the visibility and credibility of the Academy and promote the role of the RDN and NDTR.
- The CFP recommends the Academy take the lead in collaborating with other organizations and groups on the development of standards and qualifications for individuals working in wellness and health promotion/disease prevention programs to ensure delivery of evidence-based nutrition services by RDNs and NDTRs to better address nutrition-related health disparities.
- The CFP supports ACEND in incorporating emerging areas of practice into standards and competencies of the curricula for nutrition and dietetics education programs.
- The CFP supports CDR in incorporating competencies related to emerging areas of practice into the Essential Practice Competencies for the CDR's Credentialed Nutrition and Dietetics Practitioners.
- The CFP supports the Academy in its Second Century initiative to foster a culture of innovation throughout the Academy and profession commencing with the September 2016 Nutrition Impact Summit and forthcoming innovations projects and utilize innovative communications to increase member engagement in the Academy's mission and vision.

CHANGE DRIVER: TECHNOLOGICAL OBSOLESCENCE IS ACCELERATING

Advances in Technologies Are Having Dramatic Impacts on Health Care, Education, Employment, and Food Systems

Rationale. Technology is transforming the way we learn, work, and live. Our lives now revolve around access to worlds of information, instant communication, and online shopping.[101] The "perfect storm" has arrived in health care as digital technologies and online platforms emerge.[102] Patients can get a secure video doctor consultation via their smartphones for $30 to $40.[103]

Innovative digital technologies personalize, revolutionize, and increase access to health care. Telehealth enables society to address health care workforce shortages in rural America as never before.[104] Telemedicine interventions are as good as or better than traditional approaches to care.[105] A teledietetics model is more cost-effective than a face-to-face model for long-term weight reduction.[106]

Health and fitness apps are the fastest growing category of digital technologies, with an estimated worth of $4 billion in 2014, likely to increase to $26 billion by 2017.[107] Nutrition apps, mostly geared to weight loss, support adherence to diet monitoring.[108] Future medicalized smartphones[103] and doctor-designed, patient-customized mobile apps[102] can potentially decrease the use of doctors and health care costs, reduce the need for expensive clinical trials,[109] speed up care, and increase patients' control over their own care.[103]

Consumers will become "CEOs of their own health" in the future, as biometric sensors monitor their health status and provide warnings to stop disease before it happens.[110,111] As digital citizens, we should value and appreciate the many benefits of technological innovations, but we must also understand the many implications and unanticipated consequences to shape the technological future we desire.[101]

Implications.

- RDNs should shift to higher-level skills and services that cannot be automated or programmed into expert systems.[2]
- RDNs and NDTRs can become leaders in mobile app development and research, focusing on their ability to produce dietary behavior change.[108,112]
- RDNs and NDTRs who can develop technological innovations will be in demand.[2]
- Digital literacy should be a part of the official curriculum to prepare all health care professionals for digital health care technologies.[102]
- Barriers to utilizing teledietetics need to be addressed in order for RDNs to embrace technology.[104,112,113]

Recommendation.

- The CFP recommends the Academy initiate pilots and generate outcomes data on the provision of nutrition services using technology (eg, telehealth or telenutrition) and develop a framework (eg, overcoming barriers, "how to"s, reimbursement, etc) for practitioners utilizing this method of delivering nutrition services.

CHANGE DRIVER: SIMULATIONS STIMULATE STRONG SKILLS

Use of Simulation as an Instructional Methodology and the Amount of Research Focused on Simulations in Health Care Education Has Become Increasingly Popular in the Last Few Decades

Rationale. By simulating actual work settings,[114] simulations play a vital role in training before employment, as well as updating skills of current practicing professionals.[115] When compared with clinical experience, research has shown similar or improved learner attainment of knowledge and skills from simulation.[116] The use of simulations in dietetics education will continue to expand because they are effective pedagogical tools, consistent with competency-based education, and have the potential for cross-discipline competency development.[117]

Simulations help address increased complexity of health care, higher patient-acuity levels and patient safety. Consistency in students' simulated experiences can enhance the quality of patient care.[116,118,119] Learners can make mistakes in simulated scenarios, learn from their mistakes, and rehearse clinical behaviors in a low-risk environment, thus decreasing harm to patients.[115-117,119,120] Simulations that promote team settings, where professionals learn from, with, and about

each other can improve patient safety and outcomes.[115,117,119] Learners can practice with complex situations in a safe, simulated environment before experiencing similar cases in real practice, which results in increased learner skills, confidence, and potential for employment.[114,116,118-120] Simulations used for continuing professional education help maintain high standards of care that regulatory bodies, professions, and the public demand better than traditional education strategies.[115]

A severe shortage of supervised practice sites for clinical placements for students remains a challenge for dietetics education programs that are under pressure to recruit and maintain preceptors.[119] By decreasing the amount of time learners must spend in facilities and relieving some of the pressure on supervised practice sites, simulations can optimize scarce clinical education resources.[119] Simulations can also address the unequal quality of various practice sites and the inconsistent experiences students obtain during clinical placements.[119]

Implications.

- Simulations should be gradually implemented and integrated into existing curricular structures with deliberation and adequate evaluation to ensure program quality; research and evaluation should focus on the optimal method and frequency of exposure, quality of

Glossary

Accountable Care Organization: A model of health care in which groups of physicians, health care providers, and hospitals align to provide coordinated, high-quality care to their patients both inside and outside of the hospital.[68]

Advanced practice: The practitioner demonstrates a high level of skills, knowledge, and behaviors. The individual exhibits a set of characteristics that include leadership and vision and demonstrates effectiveness in planning, evaluating, and communicating targeted outcomes.[121]

Cultural competence: The ability of health organizations and practitioners to recognize the cultural beliefs, values, attitudes, traditions, language preferences, and health practices of diverse populations, and to apply that knowledge to produce a positive health outcome. In addition, competency includes communicating in a way that is linguistically and culturally appropriate.[122]

Culture of health: The result of what happens when an organization moves beyond wellness programs and undergoes "a fundamental shift toward health promotion as part of the daily practice of the organization and engages people at every level."[77]

Interprofessional education: ". . . occurs when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes."[92]

Medical nutrition therapy: An evidence-based application of the Nutrition Care Process (nutrition assessment, nutrition diagnosis, nutrition intervention/plan of care, and nutrition monitoring and evaluation). The provision of medical nutrition therapy typically results in the prevention, delay, or management of diseases and/or conditions.[121]

Nutritional genomics: A broad term encompassing several fields, all of which involve how nutrients and genes interact and are expressed to reveal phenotypic outcomes, including disease risk.[58]

Nutrition informatics: The effective retrieval, organization, storage, and optimum use of information, data, and knowledge for food and nutrition-related problem solving and decision making. Informatics is supported by the use of information standards, processes, and technology.[121]

Patient-Centered Medical Home: A model of the organization of primary care that delivers the following five core functions of primary health care: comprehensive care; patient-centered care; coordinated care; accessible services; and quality and safety.[123]

Social ecological framework: A conceptualization of intervention targets and levels of influence on behavior and behavior change: the individual level includes people's knowledge, skills, and attitudes; the interpersonal level includes social and peer influences; the institutional/organization level includes changes in organizational policies, practices, and environments; the community level includes neighborhoods and community environments; and policy and systems levels include changes in policies and social structures and systems through policy advocacy and political actions.[10]

Sustainable diets: Diets with low environmental impacts that are economically fair and affordable and contribute to food and nutrition security and healthy lives for present and future generations.[49]

Telehealth: ". . . the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration. Telehealth will include both the use of interactive, specialized equipment, for such purposes as health promotion, disease prevention, diagnosis, consultation, therapy, and/or nutrition intervention/plan of care, and non-interactive (or passive) communications, over the Internet, video-conferencing, e-mail or fax lines, and other methods of distance communications, for communication of broad-based nutrition information."[121]

Telemedicine: ". . . applicable to physicians and other practitioners, and is the use of medical information exchanged from one site to another via electronic information and telecommunications technologies to improve patients' health status, to engage in the diagnosis and treatment of medical conditions, to support clinical care, or to provide health services or aid health care personnel at distant sites."[121]

Telenutrition: ". . . involves the interactive use, by a Registered Dietitian or Registered Dietitian Nutritionist, of electronic information and telecommunications technologies to implement the Nutrition Care Process (nutrition assessment, nutrition diagnosis, nutrition intervention/plan of care, and nutrition monitoring and evaluation) with patients or clients at a remote location, within the provisions of their state licensure as applicable."[121]

Transdisciplinary professionalism: An approach to creating and carrying out a shared social contract that ensures multiple health disciplines/professions, working in concert, are worthy of the trust of patients and the public.[124]

Value based purchasing: ". . . a financial plan that links provider payment to improved performance by the health care provider."[68]

Visioning: A process in which a group describes the future it wants; visioning creates a picture of the desired future status, affirms the best of what could be, visualizes what excellence looks like, and shows the best scenario for the time; it illustrates how an organization or profession wants to "look" to insiders and outsiders and some say the vision is what you would describe if you had an overnight epiphany that illustrates the perfect position for an organization or profession.[1]

World Future Society: A chartered nonprofit educational and scientific organization founded in 1966 in Washington, DC; it is an association of people interested in how social and technological developments are changing the future; serves as a neutral clearinghouse for ideas about the future, including forecasts, recommendations, and alternative scenarios, that help people anticipate what might happen in the next 5, 10, or more years ahead.[6]

assessment tools, and impact on individual learners and patient care.[119]

- Simulations in dietetics education have the potential to decrease the number of required hours in actual practice settings (eg, clinical, management, community), improve preparation for supervised practice and improve critical thinking skills, but simulations cannot and should not be used to replace supervised practice experiences.[117,119,120]
- Simulations designed for use in dietetics education programs could also be used to re- train and update the skills of experienced RDNs and NDTRs.[115]
- Collaboration should be encouraged among dietetics educators and with other health professional education programs experienced in simulations, with respect to the development of simulation topics, design of simulations based on best education practices, and simulation evaluation data.[114,117,119]

Recommendation.

- The CFP recommends ACEND, Nutrition and Dietetics Educators and Preceptors, and CDR work collaboratively to establish minimum standards and recommendations for evaluations of simulations for use with dietetics education programs and with current credentialed practitioners for continuing professional development and create, maintain, and promote a simulations bank featuring simulations that meet the standards and are specific to different levels, areas of practice, and scopes of practice.

CONCLUSIONS

The Visioning Report of 2017 reflects the CFP's work over the past 3 years, informed by input from Academy members, CDR-credentialed dietetics practitioners, Academy organizational units, CFP think tank members, and Academy external organization liaisons. The Visioning Report 2017 is presented with support from the members of the 2015-2016 and 2016-2017 CFP, Board of Directors Executive Committee, and House of Delegates Leadership Team.

Visioning is a continuous process and includes a 3-year cycle of activities in which the CFP, with input from multiple stakeholders, defines a preferred future for the nutrition and dietetics profession. The outcomes of the 2014-2017 visioning process will help to inform the Academy and its organizational units for moving the profession forward in the next 10 to 15 years. The profession will continue to evolve, impacted by an ever-changing world, and credentialed dietetics practitioners must anticipate and be prepared for changes in practice, education, and credentialing. Although the future is unknown and we live in a time of exponential change, the CFP and other Academy stakeholders must be proactive and visionary, and collectively shape the desired future of the profession of nutrition and dietetics.

References

1. Academy of Nutrition and Dietetics Council on Future Practice. Futures thinking, visioning and change leadership process of the Council on Future Practice. www.eatrightpro.org/visioning. Published April 2014. Accessed October 29, 2015.
2. Rhea M, Bettles C. Future changes driving dietetics workforce supply and demand: Future scan 2012-2022. *J Acad Nutr Diet*. 2012;112(3 suppl 1):S10-S24.
3. Accreditation Council for Education in Nutrition and Dietetics. Rationale for future education preparation of nutrition and dietetics practitioners. www.eatrightacend.org/ACEND/content.aspx?id=6442485290. Published February 2015. Updated July 2015. Updated August 2015. Accessed August 25, 2015.
4. Academy of Nutrition and Dietetics Foundation. Future of food. www.eatrightpro.org/resource/about-us/alliances-and-collaborations/foundation-initiatives/future-of-food. Published 2013. Accessed April 17, 2015.
5. Academy of Nutrition and Dietetics. Visioning process. Change drivers and trends driving the profession: A Prelude to the Visioning Report 2017. www.eatrightpro.org/resource/leadership/volunteering/committee-leader-resources/visioning-process. Published November 12, 2015. Accessed September 15, 2016.
6. World Future Society. The art of foresight. Preparing for a changing world: A special report from the World Future Society. www.wfs.org/specialreports. Published 2009. Accessed May 4, 2015.
7. Rogers D. Compensation and benefits survey 2015. *J Acad Nutr Diet*. 2016;116(3):370-388.
8. Cetron M, Davies O. 52 Trends shaping tomorrow's world. World Future Society Website. www.wfs.org/specialreports. Published 2010. Accessed August 28, 2015.
9. Ortman J, Velkoff V, Hogan H. An aging nation: The older population in the United States. Population estimates and projections. US Census Bureau. May 2014; Report Number: P25-1140. www.census.gov/library/publications/2014/demo/p25-1140.html. Updated July 17, 2014. Accessed December 14, 2014.
10. Haughton B, Stang J. Population risk factors and trends in health care and public policy. *J Acad Nutr Diet*. 2012;112(3 suppl 1):S35-S46.
11. Anderson G. Chronic care: Making the case for ongoing care. Princeton, NJ: Robert Wood Johnson Foundation; 2010. www.rwjf.org/pr/product.jsp?id=50968. Accessed October 29, 2015.
12. Centers for Medicare and Medicaid Services. *Chronic Conditions Among Medicare Beneficiaries, Chart Book*. Baltimore, MD: Centers for Medicare & Medicaid Services; 2011.
13. Gerteis J, Izrael D, Deitz D, et al. *Multiple Chronic Conditions Chartbook: 2010 Medical Expenditure Panel Survey Data*. AHRQ Publications No. Q14-0038. Rockville, MD: Agency for Healthcare Research and Quality; April 2014.
14. Position of the American Dietetic Association, American Society for Nutrition, and Society for Nutrition Education. Food and nutrition programs for community-residing older adults. *J Am Diet Assoc*. 2010;110(3):463-472.
15. Academy of Nutrition and Dietetics. *Compensation and Benefits Survey of the Dietetics Profession*. Chicago, IL: Academy of Nutrition and Dietetics; 2013:1-225.
16. Colby SL, Ortman JM. Projections of the size and composition of the US population: 2014 to 2060. Current population reports, P25-1143. Washington, DC: US Census Bureau; 2014. http://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf. Accessed November 3, 2015.
17. Ennis S, Rios-Vargas M, Albert N. The Hispanic population: 2010. US Census Bureau. Published May 2011. www.census.gov/prod/cen2010/briefs/c2010br-04.pdf. Accessed October 23, 2015.
18. Hoeffel E, Rastogi S, Ouk Kim M, Shahid H. The Asian population: 2010. US Census Bureau. Published March 2012. www.census.gov/prod/cen2010/briefs/c2010br-11.pdf. Accessed October 23, 2015.
19. Gaba A, Srivastava A, Amadi C, Joshi A. The nutrition and dietetics workforce needs skills and expertise in the New York metropolitan area. *Global J Health Sci*. 2015;8(6):14-24.
20. Centers for Disease Control and Prevention, Division of Community Health. *A Practitioner's Guide for Advancing Health Equity: Community Strategies for Preventing Chronic Disease*. Atlanta, GA: US Department of Health and Human Services; 2013.
21. Department of Health and Human Services. *HHS Action Plan to Reduce Racial*

and Ethnic Health Disparities. A Nation Free of Disparities in Health and Health Care. Washington, DC: US Department of Health and Human Services; April 2011.

22. US Department of Health and Human Services. HHS takes next step in advancing health equity through the Affordable Care Act. http://www.hhs.gov/about/news/2015/09/03/hhs-takes-next-step-advancing-health-equity-through-affordable-care-act.html. Published September 3, 2015. Accessed October 23, 2015.
23. Kaiser Family Foundation. Disparities in health and health care: Five key questions and answers. http://kff.org/disparities-policy/issue-brief/disparities-in-health-and-health-care-five-key-questions-and-answers/. Published November 30, 2012. Accessed October 15, 2015.
24. Besnilian A, Goldenberg A, Plunkett S. Promoting diversity within the dietetics profession through a peer mentorship program. *J Acad Nutr Diet*. 2016;116(2):198-202.
25. Stein K. The educational pipeline and diversity in dietetics. *J Acad Nutr Diet*. 2012;112(6):791-800.
26. Mok HF, Williamson VG, Grove JR, Burry K, Barker SF, Hamilton AJ. Strawberry fields forever? Urban agriculture in developed countries: A review. *Agron Sustain Dev*. 2014;34:21-43.
27. US Department of Agriculture. Know your farmer know your food. www.usda.gov/wps/portal/usda/usdahome?navid=KYF_COMPASS Updated May 11, 2015. Accessed June 19, 2015.
28. Feldmann C, Hamm U. Consumers' perceptions and preferences for local food: A review. *Food Qual Prefer*. 2015;40:152-164.
29. Robinson-O'Brien R, Gerald BL. Practice paper of the Academy of Nutrition and Dietetics: Promoting ecological sustainability with the food system [abstract]. *J Acad Nutr Diet*. 2013;113(3):464, www.eatrightpro.org/resources/practice/position-and-practice-papers/practice-papers. Accessed December 18, 2014.
30. Pelletier J, Laska M, Neumark-Sztainer D, Story M. Positive attitudes toward organic, local, and sustainable foods are associated with higher dietary quality among young adults. *J Acad Nutr Diet*. 2013;113(1):127-132.
31. Nie C, Zepeda L. Lifestyle segmentation of US food shoppers to examine organic and local food consumption. *Appetite*. 2011;57(1):28-37.
32. US Department of Agriculture. Local and regional food systems. www.usda.gov/wps/portal/usda/usdahome?contentid=usda-results-local.html. Last modified June 24, 2015. Accessed September 29, 2015.
33. Watrous M. Is local the new organic? Food Business News website. www.foodbusinessnews.net. Published January 28, 2015. Accessed August 3, 2015.
34. Tagtow A, Robien K, Bergquist E, et al. 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. *J Acad Nutr Diet*. 2014;114(3):475-488.
35. Buttriss J. Food reformulation: The challenges to the food industry. *Proc Nutr Soc*. 2013;72(1):61-69.
36. West PC, Gerber JS, Engstrom PM, et al. Leverage points for improving global food security and the environment. *AAAS*. 2014;345(6194):325-328.
37. Bajzeli B, Richards K, Allwood J, et al. Importance of food-demand management for climate mitigation. *Nat Climate Change*. 2014;4:924-929.
38. Dube L, Pingali P, Webb P. Paths of convergence for agriculture, health, and wealth. *PNAS*. 2012;109(31):12294-12301.
39. Lubroth J. FAO and the one health approach. *Curr Topics Microbiol Immunol*. 2013;366:65-72.
40. Wu SH, Ho CT, Nah SL, Chau CF. Global hunger: A challenge to agricultural, food, and nutritional sciences. *Crit Rev Food Sci Nutr*. 2014;54(2):151-162.
41. Aiking H. Protein production: Planet, profit, plus people? *Am J Clin Nutr*. 2014;100(suppl):483S-489S.
42. Vermeulen SJ, Campbell BM, Ingram JSI. Climate change and food systems. *Annu Rev Environ Res*. 2012;37:195-222.
43. Raphaely T, Marinova D. Flexitarianism: Decarbonising through flexible vegetarianism. *Renew Energy*. 2014;67:90-96.
44. Colpaart A. Water use and shortages: The environmental impact and how RDs can help. *Today's Dietitian*. 2015;17(7):46-51.
45. Tilman D, Clark M. Global diets link environmental sustainability and human health. *Nature*. 2014;515(7528):518-522.
46. Gleick PH, Cooley H, Morikawa M. *The World's Water 2008-2009: The Biennial Report on Freshwater Resources*. Washington, DC: Island Press; 2009.
47. Thorburn PJ, Wilkinson SN, Silburn DM. Water quality in agricultural lands draining to the Great Barrier Reef: A review of causes, management and priorities. *Agricult Ecosyst Environ*. 2013;180(1):4-20.
48. Coupe RH, Kalkhoff SJ, Capel PD, Gregoire C. Fate and transport of glyphosate and aminomethylphosphonic acid in surface waters of agricultural basins. *Pest Manag Sci*. 2012;68(1):16-30.
49. Macdiarmid J, Kyle J, Horgan GW, et al. Sustainable diets for the future: Can we contribute to reducing greenhouse gas emissions by eating a healthy diet? *Am J Clin Nutr*. 2012;96(3):632-639.
50. Macdiarmid JI. Conference on 'Future Food and Health' symposium I: Sustainability and food security. Is a healthy diet an environmentally sustainable diet? *Proc Nutr Soc*. 2013;72:13-20.
51. Foley J. Can we feed the world & sustain the planet? *Sci Am*. 2011;3015(5):60-65.
52. Vogliano C, Stieber A, Brown K. Linking agriculture, nutrition, and health: The role of the registered dietitian. *J Acad Nutr Diet*. 2015;115(10):1710-1714.
53. Pansing C, Wasserman A, Fisk J, Muldoon M, Kiraly S, Benjamin T. *North American Food Sector, Part One: Program Scan and Literature Review*. Arlington, VA: Wallace Center at Winrock International; 2013.
54. Wilms T. The world in 2033: Big thinkers and futurists share their thoughts. Forbes website. www.forbes.com/sites/sap/2013/02/08/the-world-in-2033-big-thinkers-and-futurists-share-their-thoughts/. Published February 8, 2013. Accessed February 13, 2015.
55. Wheelwright V. Adventures in personal genomics. *The Futurist*. 2014;48(3):43-45.
56. DeBusk R. Diet-related disease, nutritional genomics, and food and nutrition professionals. *J Am Diet Assoc*. 2009;109(3):410-413.
57. Mueller C, Rogers D, Brody RA, Chaffee CL, Touger-Decker R. Report from the advanced-level clinical practice audit task force of the Commission on Dietetic Registration: Results of the 2013 advanced-level clinical practice audit. *J Acad Nutr Diet*. 2015;114(4):624-634.
58. Camp K, Trujillo E. Position of the Academy of Nutrition and Dietetics: Nutritional genomics. *J Acad Nutr Diet*. 2014;114(2):299-312.
59. Singh RH, Kaczmarczyk MM. Standards of professional practice for genetic metabolic dietitians. *Genet Med*. 2008;10(4):290-293.
60. Camp K, Robr F. Advanced practitioners and what they do that is different. Roles in genetics. *Top Clin Nutr*. 2009;24(3):219-230.
61. Centers for Disease Control and Prevention. Chronic diseases: The leading cause of death and disability in the United States. http://www.cdc.gov/chronicdisease/overview/. Published 2014. Updated August 26, 2015. Accessed October 23, 2015.
62. Centers for Disease Control and Prevention. *The State of Aging and Health in America 2013*. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2013.
63. Institute of Medicine. *Integrating Research and Practice: Health System Leaders Working Toward High-Value Care: Workshop Summary*. Washington, DC: The National Academies Press; 2014.
64. Kassler W, Tomoyasu N, Conway P. Beyond a traditional payer—CMS's role in improving population health. *N Engl J Med*. 2015;372(2):109-111.
65. Boyce B. Paradigm shift in health care reimbursement: A look at ACOs and bundled service payments. *J Acad Nutr Diet*. 2012;112(7):974-979.
66. Jacobson DM, Teutsch S. An environmental scan of integrated approaches for defining and measuring total population health by the clinical care system, the government public health system, and stakeholder organizations. National Quality Forum. www.qualityforum.org/Publications/2012/06/An_Environmental_Scan_of_Integrated_Approaches_for_Defining_and_Measuring_Total_Population_Health.aspx. Published June 2012. Accessed March 19, 2015.

67. Jortberg BT, Fleming MO. Registered dietitian nutritionists bring value to emerging health care delivery models. *J Acad Nutr Diet*. 2014;114(12):2017-2022.

68. Rosen B, Maddox P, Ray N. A Position paper on how cost and quality reforms are changing healthcare in America: Focus on nutrition. *J Parenter Enteral Nutr*. 2013;37(6):796-801.

69. Vogt EAM, Byham-Gray L, Touger-Decker R. Perceptions, attitudes, knowledge, and clinical use of evidence-based practice among US registered dietitians: A prospective descriptive pilot study. *Top Clin Nutr*. 2013;28(3):283-294.

70. King C, Byham-Gray L, O'Sullivan Maillet J, Scott Parrott J, Splett P, Roberts M. Dietitians and research: Facilitating involvement. History of dietitian involvement in dietetics research in the US. *Top Clin Nutr*. 2014;29(3):227-238.

71. Feldblum I, German L, Castel H, Harman-Boehm I, Shahar DR. Individualized nutritional intervention during and after hospitalization: The nutrition intervention study clinical trial. *J Am Geriatr Soc*. 2011;59(1):10-17.

72. Hegerova P, Dedkova Z, Sovotka L. Early nutritional support and physiotherapy improved long-term self-sufficiency in acutely ill older patients. *Nutrition*. 2015;31(1):166-177.

73. Lammers M, Kok L. *Cost-Benefit Analysis of Dietary Treatment*. 22nd Version. Amsterdam: SEO Economic Research; 2012.

74. Harvey E. Standardized ordering and administration of total parenteral nutrition reduced errors in children's hospital. AHRQ Health Care Innovations Exchange. https://innovations.ahrq.gov/profiles/standardized-ordering-and-administration-total-parenteral-nutrition-reduces-errors. Published March 2, 2009. Updated July 30, 2014. Accessed August 12, 2015.

75. Woodcock CH, Nelson GD. Hospital community benefits after the ACA: Leveraging hospital community benefit policy to improve community health. Hospital Community Benefit Program. Baltimore, MD: The Hilltop Institute; June 2015. http://www.hilltopinstitute.org/publications/HospitalCommunityBenefitsAfterTheACA-LeveragingPolicyIssueBrief11-June2015.pdf. Accessed October 6, 2016.

76. Academy of Nutrition and Dietetics. Committee for Public Health/Community Nutrition established within the Academy of Nutrition and Dietetics. *J Acad Nutr Diet*. 2015;115(9):1499.

77. Wiseman A, Boothe A, Reynolds M, Belay B. *Healthy Hospital Choices: Recommendations and Approaches from an Expert Panel*. Atlanta, GA: Centers for Disease Control and Prevention; 2010.

78. Begun R. Food(service) as medicine. Food Management website. http://food-management.com/blog/foodservice-medicine. Published August 18, 2015. Accessed August 21, 2015.

79. Watts AW, Laska MN, Larson NI, Neumark-Sztainer DR. Millennials at work: Workplace environments of young adults and associations with weight-related health. *J Epidemiol Community Health*. 2016;70(1):65-71.

80. Olstad DL, Raine KD, McCargar LJ. The role of registered dietitians in health promotion. *Can J Diet Pract Res*. 2013;74(2):80-83.

81. Davis AM, Affenito SG. Nutrition and public health: Preparing registered dietitian nutritionists for marketplace demands. *J Acad Nutr Diet*. 2014;114(5):695-699.

82. Academy of Nutrition and Dietetics. Position of the Academy of Nutrition and Dietetics: The role of nutrition in health promotion and chronic disease prevention. *J Acad Nutr Diet*. 2013;113(7):972-979.

83. Frey S, French S. Health & wellness in America. The Nielsen Company and Natural Marketing Institute. http://www.nielsen.com/us/en/insights/reports/2014/health-and-wellness-in-america-the-consumer-perspective.html. Published August 2014. Accessed February 9, 2015.

84. Ayala GX, Ibarra L, Binggeli-Vallarta A, et al. Our choice/nuestra opcio'n: The Imperial County, California, childhood obesity research demonstration study (CA-CORD). *Childhood Obes*. 2015;11(1):37-47.

85. Watkins C, English G. Moving the worksite health promotion profession forward: Is the time right for requiring standards? A review of the literature. *Health Promot Pract*. 2015;16(1):20-27.

86. Mincher J, Leson S. Worksite wellness: An ideal career option for nutrition and dietetics practitioners. *J Acad Nutr Diet*. 2014;114(12):1895-1901.

87. Institute of Medicine. *To Err is Human*. Washington, DC: The National Academies Press; 1999.

88. Institute of Medicine. *Crossing the Quality Chasm. A New Health System for the 21st Century*. Washington, DC: The National Academies Press; 2001.

89. Institute of Medicine. *Health Professions Education: A Bridge to Quality*. Washington, DC: The National Academies Press; 2003.

90. Berwick DM, Nolan TW, Whittington J. The triple aim: Care, health, and cost. *Health Affairs*. 2008;27(3):759-769.

91. Blue A, Brandt BF, Schmitt MH. American Interprofessional Health Collaborative: Historical roots and organizational beginnings. *J Allied Health*. 2010;39(3 Pt 2):204-209.

92. Gilbert JHV, Yan J, Hoffman SJ. A WHO Report: Framework for action on interprofessional education and collaborative practice. *J Allied Health*. 2010;39(3 Pt 2):196-197.

93. Institute of Medicine. *Interprofessional Education for Collaboration: Learning How to Improve Health from Interprofessional Models Across the Continuum of Education to Practice: Workshop Summary*. Washington, DC: The National Academies Press; 2013.

94. Interprofessional Education Collaborative Expert Panel (IPEC). *Core Competencies for Interprofessional Collaborative Practice: Report of an Expert Panel*. Washington, DC: IPEC; 2011.

95. Eliot KA, Kolasa KM. The value in interprofessional, collaborative-ready nutrition and dietetics practitioners. *J Acad Nutr Diet*. 2015;115(10):1578-1588.

96. Institute of Medicine. *Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes*. Washington, DC: The National Academies Press; 2015.

97. Food Marketing Institute. New survey: Food retailers identified as wellness destination. /www.fmi.org/news-room/latest-news/view/2015/03/10/new-survey-food-retailers-identified-as-wellness-destination. Published March 10, 2015. Accessed September 11, 2015.

98. Murray CJ, Forouzanfar M, Alexander L, et al. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990-2013: A systematic analysis for the global burden of disease study 2013. *Lancet*. 2015;386(10010):2287-2323.

99. Webb D. Retail RDs' impact on public health. *Today's Dietitian*. 2015;17(3):40-43.

100. Tuma P. An overview of the intentions of health care reform. *J Acad Nutr Diet*. 2012;112(suppl 1):S56-S63.

101. Albrecht K. The information revolution's broken promises. *Futurist*. 2014;48(2):22-28.

102. Mesko B. Rx disruption: Technology trends in medicine and health care. *Futurist*. 2014;48(3):31-38.

103. Topol E. The future of medicine is in your smartphone: New tools are tilting health-care control from doctors to patients. Wall Street Journal. www.wsj.com/articles/the-future-of-medicine-is-in-your-smartphone-1420828632. Published January 9, 2015. Accessed November 3, 2015.

104. Institute of Medicine. *The Role of Telehealth in an Evolving Health Care Environment: Workshop Summary*. Washington, DC: National Academy of Sciences; 2012.

105. Wootton R. Twenty years of telemedicine in chronic disease management—An evidence synthesis. *J Telemed Telecare*. 2012;18(4):211-220.

106. Chung LMY, Law QPS, Fong SSM, Chung JWY, Yuen PP. A cost-effectiveness analysis of teledietetics in short-, intermediate-, and long-term weight reduction. *J Telemed Telecare*. 2015;21(5):268-275.

107. Boxall A. 2015 Is the year of health and fitness apps, says Google. Digital Trends website. www.digitaltrends.com/mobile/google-play-store-2014-most-downloaded-apps/. Published December 11, 2014. Accessed December 12, 2014.

108. DiFilippo K, Huang WH, Andrade J, Chapman-Novakofski K. The use of mobile apps to improve nutrition outcomes: A systematic literature review. *J Telemed Telecare*. 2015;21(5):243-253.

109. Frey T. 33 Dramatic predictions for 2030. Futurist Speaker website. www.futuristspeaker.com. Published December, 2013. Accessed February 13, 2015.

110. Diamandis P. Ripe for disruption. Transportation. Agriculture. Healthcare and eldercare. http://diamandis.com/blog/ripe-for-disruption-part-3. Published September 20, 2015. Accessed September 22, 2015.

111. Diamandis P. Healthcare, finance and insurance. www.diamandis.com/blog/ripe-for-disruption-part-1. Published September 6, 2015. Accessed September 22, 2015.

112. Stein K. Remote nutrition counseling: Considerations in a new channel for client communication. *J Acad Nutr Diet*. 2015;115(10):1561-1576.

113. Rollo ME, Hutchesson MJ, Burrows TL, et al. Video consultations and virtual nutrition care for weight management. *J Acad Nutr Diet*. 2015;115(8):1213-1225.

114. Qayumi K, Pachev G, Zheng B, et al. Status of simulation in health care education: An international survey. *Adv Med Educ Pract*. 2014;5:457-467.

115. Khanduja PK, Bould MD, Naik VN, Hladkowicz E, Boet S. The role of simulation in continuing medical education for acute care physicians: A systematic review. *Crit Care Med*. 2015;43(1):186-193.

116. Liaw SY, Palham S, Wai-Chan S, Wong LF, Lim FP. Using simulation learning through academic-practice partnership to promote transition to clinical practice: A qualitative evaluation. *J Adv Nurs*. 2015;71(5):1044-1054.

117. Damassa D, Sitko T. Simulation technologies in higher education: Uses, trends, and implications. ECAR Research Bulletin 3. Boulder, CO: Educause; 2010. https://net.educause.edu/ir/library/pdf/ERB1003.pdf. Accessed October 6, 2016.

118. Lewis S, Brezina A. Enteral nutrition simulation-based training and competency assessment. *J Acad Nutr Diet*. 2014;114(9 suppl 2):A-67.

119. Thompson K, Gutschall M. The time is now: A blueprint for simulation in dietetics education. *J Acad Nutr Diet*. 2015;115(2):183-194.

120. Akroyd M, Jordan G, Rowlands P. Interprofessional, simulation-based technology-enhanced learning to improve physical healthcare in psychiatry: The RAMPPS course. *Health Inform J*. 2016;22(2):397-405.

121. Academy of Nutrition and Dietetics. Definition of terms. www.eatrightpro.org/resources/practice/quality-management/scope-of-practice. Updated January 2015. Accessed September 25, 2015.

122. US Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Quick guide to health literacy fact sheet. http://health.gov/communication/literacy/quickguide/factsbasic.htm. Accessed October 15, 2015.

123. Agency for Healthcare Research and Quality. Defining the PCMH. US Department of Health and Human Services. Patient Centered Medical Home Resource Center. https://www.pcmh.ahrq.gov/page/defining-pcmh. Accessed November 3, 2015.

124. Institute of Medicine. *Establishing Transdisciplinary Professionalism for Improving Health Outcomes: Workshop Summary*. Washington, DC: The National Academies Press; 2014.

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