

Practice Paper of the American Dietetic Association: Addressing Racial and Ethnic Health Disparities

ABSTRACT

Minority populations have remained in relatively poor health compared to the majority population and continue to be underserved by the health care system. Racial and ethnic health disparities are not new phenomena. Understanding the causes of these disparities continues to evolve. Within the past decade researchers have looked more toward social determinants of health to explain the differences. The Institute of Medicine (IOM) report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* provided documentation to shift the discussion from patient behaviors to the contributions of health care systems, including health care providers, that contribute to health disparities. The report was the first comprehensive study that documented racial and ethnic inequities within the US health care delivery system (ie, differential treatment on the basis of race and ethnicity). The authors of the IOM report indicated that they found some evidence to suggest that bias, prejudice, and stereotyping by providers may contribute to differences in care. It is possible that food and nutrition practitioners have the same biases and are presented with the same systems challenges as the health care providers referenced in the IOM report. It is, therefore, also possible that food and nutrition practitioners may be at risk of contributing to health disparities. This article provides an in-depth look at the recommendations put forth by the IOM, offers discipline-specific recommendations consistent with those outlined in the IOM model, and introduces other models that may be of use as food and nutrition practitioners move forward with developing strategies to eliminate racial and ethnic health disparities.

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Minority populations have a higher incidence of chronic disease, poorer health outcomes, and higher mortality compared to the majority population. Blacks* and Native Hawaiians are more likely to die from heart disease, cancer, and stroke when compared to their white counterparts (1). Blacks and American Indians† have higher rates of infant mortality with rates in black Americans being 2.5 times higher (2,3). Blacks and Hispanics have higher rates of human immunodeficiency virus with blacks having rates nine times higher (4). American Indian and Hispanics are twice as likely as non-Hispanic whites to have diabetes (2,5-7). Blacks and American Indians/Alaskan Natives have higher asthma rates (2). Blacks, Hispanics, and American Indians are bearing the brunt of the obesity epidemic (8,9). These racial and ethnic health disparities, defined as differences in the overall rate of disease incidence, prevalence, morbidity, mortality, or survival rates, although deplorable are by no means new.

American Indians have experienced compromised health since colonization of their ancestral land during the 18th century (7). Many different explanations have been offered for the disparities, including God's wrath for their way of life, ill adaptation to the richer diet of the

English, and poor health behaviors. However, it is more likely that the trauma of infectious diseases, disenfranchisement, and war has been difficult to overcome in light of the continued lack of access to health care (7).

Blacks have also experienced continued health disparities. During the late 1800s to early 1900s, the prevailing view was that differences in health outcomes that existed between white and African-American populations could be explained by differences in biologies (plural to reflect the difference in biology between the majority and minority populations). It was widely accepted that African Americans possessed inferior biology (9-11).

Hispanics are at risk of poor health outcomes as a result of their underutilization of preventative services (10). The underuse has been attributed to language barriers, cultural barriers, lack of employer-sponsored health care insurance due to immigration status, educational limitations, and employment in high-risk jobs with high rates of unintentional injuries and exposures to health hazards (12,13). Understanding the causes of these disparities continues to evolve. Within the past decade researchers have looked more toward social determinants of health; that is, external factors that influence health such as education, geographic location, sexuality, job status, and socioeconomic status, to explain the differences in health status (14,15).

Racial and ethnic health disparities were estimated to cost the health care system \$23.9 million in direct costs in 2009 (16). Though this cost is staggering, it in no way captures all of the costs associated with racial and ethnic health disparities. Health disparities also have a great financial effect on society in terms of human potential and efficiencies lost as a result of increased morbidity and premature

**Blacks will be used throughout this article to represent the larger groups of Individuals of Black African descent and represents the three major groups in the United States of African Americans (blacks born in the United States, Black Africans [black immigrants from Africa], and Afro-Caribbean).*

†American Indians will be used in this article and the term will include persons who consider themselves Native Americans.

mortality. A study conducted by the Joint Center for Political and Economic Studies puts the cost of combined direct and indirect cost of health inequalities in the United States at \$1.24 trillion in 2008 inflation-adjusted dollars (17). It has been estimated that the racial and ethnic demographics of the United States may be very different in the future. According to the US Census, by 2050, today's majority of non-Hispanic whites will comprise barely half of the US population (18). Meanwhile, the Hispanic population will increase from 13% in 2000 to more than 24% in 2050 of the population and people of Asian origin will increase from nearly 4% to 8% of the population during the same period (18). The number of foreign-born people, a large heterogeneous group of 33.5 million (11.7% of the US population) will continue to rise (18). In light of these predictions regarding future shifts in demographics, and the potential economic and human costs of health disparities, health care practitioners and participants in the health care system are becoming more focused on resolving these disparities.

In 2000, the US Department of Health and Human Services incorporated an overarching goal of eliminating health disparities into the Healthy People 2010 objectives (19). This was prompted by the 1998 congressionally mandated report of the Institute of Medicine (IOM) on health disparities. The report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* provided documentation to shift the discussion from patient behaviors to the contributions of the health care system, including health care practitioners who contribute to health disparities (20). The report documented racial inequities within the US health care delivery system (eg, differential treatment on the basis of race). Additional studies conducted by the Agency for Healthcare Research and Quality have found similar results (13).

The authors of the IOM report found evidence to suggest that bias, prejudice, and stereotyping by physicians may contribute to differences in health care outcomes. They proposed that the bias is not necessarily malicious in nature, but results from a lack of understanding of other cul-

tures, time pressures, and uncertainty about a diagnosis or effect of a certain treatment (20). Though the IOM report specifically referenced physician and nurse behavior, all disciplines are prone to these biases. The IOM report provided recommendations for eliminating health disparities that include legal, regulatory, and policy interventions; health systems' interventions; patient education and empowerment; cross-cultural education in the health professions; data collection and monitoring; and research.

This Practice Paper focuses on racial and ethnic health disparities and offers discipline-specific recommendations consistent with those outlined in the IOM model that may be useful as food and nutrition practitioners move forward with developing strategies to eliminate racial and ethnic health disparities.

WHY SHOULD FOOD AND NUTRITION PRACTITIONERS BE INVOLVED?

According to the Centers for Disease Control and Prevention, the 10 leading causes of death for adults are: heart disease; cancer; stroke (cerebrovascular diseases); chronic lower respiratory diseases; unintentional injuries; diabetes; Alzheimer's disease; influenza and pneumonia; nephritis, nephrotic syndrome, and nephrosis; and septicemia. In each category, minority populations have higher age-adjusted mortality rates than the majority population (21,22). Racial and ethnic minorities also bear the greatest morbidity burden for these same diseases (23). Nutrition is an accepted component of either the treatment or the etiology of six of these diseases. For example, obesity, which is partially attributed to poor nutritional intake, has been implicated as a contributor to cancer, heart disease, stroke, and diabetes (24-26).

It is important to note that nutritious food is not equally available to everyone. Some people live in food deserts, where nutritious food is either very expensive or limited (27,28). Food and nutrition practitioners who are well versed in nutrition and chronic disease and who understand the food environment are therefore integral to health care teams. Accordingly, food and nutrition practitioners have an opportunity and an ethical

obligation to positively influence the health care experience of individuals.

Finally, there are few factors more affected by culture than an individual's diet (29). Food and nutrition practitioners must be culturally competent to provide instructions that fully meet the nutrition needs of individuals while integrating these in the individual's traditional or cultural diet. Similar to other health care practitioners, food and nutrition practitioners must understand that cultural competence requires that patients/clients be included as an integral part of the health care team. Food and nutrition practitioners must understand the importance of culture on food behaviors and must develop eating plans that are culturally appropriate and nutritionally sound for the patient/client.

American Dietetic Association's (ADA's) Commitment

ADA actively identifies and offers opportunities to individuals with varied skills, talents, abilities, ideas, disabilities, backgrounds, and practice expertise. ADA has demonstrated its commitment to diversity and the reduction of health disparities through a variety of actions and initiatives, including, but not limited to, the diversity philosophy statement, the Commission on Dietetic Registration (CDR) Code of Ethics, the Commission on Accreditation for Dietetics Education standards, and ADA House of Delegates activities.

The diversity philosophy statement indicates: "the American Dietetic Association values and respects the diverse viewpoints and individual differences in all people" (30). This commitment is further exemplified in ADA's strategic plan (31). To achieve ADA's mission of empowering members to be the nation's food and nutrition leaders and ADA's goals, to "improve the health of Americans," the organization has included a strategy to, "strengthen cultural competence to address health disparities." In addition, the values included in the strategic plan—customer focus, integrity, innovation, and social responsibility—all support inclusivity.

ADA's and CDR's code of ethics (32), which provides guidance to food and nutrition practitioners in their conduct and practice, recognizes eth-

ical responsibility as it relates to diversity. The code of ethics advises that the “dietetics practitioner does not, in professional practice, discriminate against others on the basis of race, ethnicity, creed, religion, disability, gender, age, gender identity, sexual orientation, national origin, economic status, or any other legally protected category.” The code of ethics further states that the “dietetics practitioner provides services in a manner that is sensitive to cultural differences.” The code of ethics, which food and nutrition practitioners have voluntarily adopted, aligns with the strategic direction of ADA and obligates food and nutrition practitioners to adhere to a high standard of service to the public (32).

The Commission on Accreditation for Dietetics Education has also ensured attention to health disparities through its standards. “Provide nutrition care for people of diverse cultures and religions,” is one of a number of competencies for entry-level registered dietitians (RDs) and dietetic technicians, registered (DTRs), that relates to the development of professional knowledge and the skills needed to address health disparities (33). The Professional Development Portfolio of the CDR provides Learning Need Codes for cultural sensitivity (code 1040), foreign languages, cultures (code 1060), and cultural/ethnic food and culinary practices (code 8015).

In addition to focusing on health disparities as a House of Delegates mega issue, ADA has taken other relevant actions to address this issue. These include establishment of a diversity committee, funding for diversity promotion grants and awards, development of a diversity toolkit for educators, and establishment of member interest groups that have increased the involvement of diverse members in ADA activities. Educational opportunities at the annual conference and publications, such as the *Ethnic and Regional Food Practices* series, have also been available for professional development. Although these steps are moving ADA in the right direction for an organization committed to optimizing the nation’s health, developing a model for reducing racial and ethnic disparities that clearly defines objectives and strategies would be useful.

The etiology of health disparities is complex, and developing a model may further assist food and nutrition practitioners in understanding the issue and in exploring solutions. A model may also clarify that a multidimensional approach is needed in addressing the varied factors that promote racial and ethnic health disparities. Exploring a number of existing models may be useful in helping members broadly conceptualize the issue. **Figure 1** lists the recommendations of the IOM’s model and how they are pertinent to food and nutrition practitioners (20).

Other models that provide useful examples have been developed by the Office of Minority Health (34), the National Medical Association (35), the Collaborative of Healthcare Organizations (36), the Kaiser Institute for Health Policy (37), and the Centers for Disease Control and Prevention (38,39). Each of these models focuses on meeting the challenge to provide equitable, safe, and high-quality health care to an increasingly diverse population. Although the recommended strategies to reduce health disparities in each of these models vary, there are some significant commonalities: they include implementing a self-assessment tool (individual or organizational) to identify barriers and gaps, emphasize attention to increasing the awareness of stakeholders and training of staff; recommend increased dialogue between and collaboration with stakeholders, include processes to identify customer/patient cultural and language needs, and recommend system approaches that are monitored on an ongoing basis and are in line with available resources. Within this article the IOM model is used to illustrate how a specific model may be adapted. This model was selected because the National Academies, which houses the IOM, is considered a reputable nonbiased entity. In addition, this model has been foundational to many of the other models. The following section describes practice recommendations that include examples that food and nutrition practitioners may use to assist in reducing racial and ethnic health disparities.

PRACTICE-SPECIFIC RECOMMENDATIONS

The recommendations are listed by area of practice (as this is how professional roles in dietetics have been traditionally defined) and are cross-referenced to the IOM recommendations for illustrative purposes. In reality, the division of recommendations by practice is an artificial one; many of the recommendations can be adapted by all areas of practice. It takes a team of food and nutrition practitioners (from diverse practice areas) to apply these recommendations. **Figure 2** broadly describes how food and nutrition practitioners can play a role. The circles of factors that influence health disparities are connected and may often overlap. What happens in systems and organizations is clearly affected by individual behaviors and values, interpersonal interactions, social and cultural environments, knowledge and awareness, and policies. For example, food and nutrition practitioners in policymaking and administrative roles exist in all areas of dietetics. Administrative clinical dietitians may work to implement policies that ensure use of trained interpreters for their non-English-speaking patients/clients to enhance linguistic competencies within their facilities (defined in **Figure 3**). Those working in public health administration may work with partners in county planning to advocate for built environmental policies that ensure access to areas for safe physical activity in minority and economically depressed neighborhoods (defined in **Figure 3**). A school foodservice director may work with parents who have limited income and who often feel disenfranchised and powerless to make change to seek changes in school district policy to reduce vending of high-sugar beverages in school cafeterias. Furthermore, food and nutrition practitioners may work to integrate culturally competent operational processes and accountability mechanisms into their organizational mission, vision, values, and goals when they are engaged in strategic planning.

Regardless of area of practice, food and nutrition practitioners must continually assess cultural and linguistic competency of themselves, the organization/system, and the environment. Self-assessment should include

General recommendations

Recommendation 2-1: Increase awareness of racial and ethnic disparities in healthcare among the general public and key stakeholders.

Recommendation 2-2: Increase healthcare providers' awareness of disparities.

Legal, Regulatory, and Policy Interventions

Recommendation 5-2: Strengthen the stability of patient-provider relationships in publicly funded health plans.

Recommendation 5-3: Increase the proportion of underrepresented U.S. racial and ethnic minorities among health professionals.

Recommendation 5-6: Promote the consistency and equity of care through the use of evidence-based guidelines.

Recommendation 5-7: Structure payment systems to ensure an adequate supply of services to minority patients, and limit provider incentives that may promote disparities.

Recommendation 5-8: Enhance patient-provider communication and trust by providing financial incentives for practices that reduce barriers and encourage evidence-based practice.

Recommendation 5-9: Support the use of interpretation services where community need exists.

Recommendation 5-10: Support the use of community health workers.

Recommendation 5-11: Implement multidisciplinary treatment and preventive care teams.

Patient Education and Empowerment

Recommendation 5-12: Implement patient education programs to increase patients' knowledge of how to best access care and participate in treatment decisions.

Cross-Cultural Education in the Health Professions

Recommendation 6-1: Integrate cross-cultural education into the training of all current and future health professionals.

Data Collection and Monitoring

Recommendation 7-1: Collect and report data on health care access and utilization by patients' race, ethnicity, socioeconomic status, and where possible, primary language.

Recommendation 7-2: Include measures of racial and ethnic disparities in performance measurement.

Recommendation 7-3: Monitor progress toward the elimination of healthcare disparities.

Recommendation 7-4: Report racial and ethnic data by OMB categories, but use subpopulation groups where possible.

Research Needs

Recommendation 8-1: Conduct further research to identify sources of racial and ethnic disparities and assess promising intervention strategies.

Recommendation 8-2: Conduct research on ethical issues and other barriers to eliminating disparities.

Figure 1. Institute of Medicine recommendations for reducing racial and ethnic health disparities that are relevant for food and nutrition practitioners. Reprinted with permission from: *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, 2003, by the National Academy of Sciences, Courtesy of National Academies Press, Washington, DC (20).

taking an objective look at one's own awareness and knowledge of disparities, reflecting on internal biases, and determining the need for personal and professional education and training. The organizational/system assessment should involve workplace policies, structures, and services that both support and act as barriers to providing culturally competent services and institutional biases impeding access and quality of care and services. This level of assessment should also review the existing traditional and nontraditional partnerships for addressing disparities. The environmental level of assessment should evaluate the social and political landscape that impacts the manifestation of disparities. This requires evaluat-

ing existing policy and practice impediments to accessing healthy food and high-quality nutrition services. The National Center for Cultural Competence at Georgetown University has a number of tools for self-assessment as well as assessment of organizational policies (45). The University of Illinois at Urbana-Champaign has a program that assesses the cultural linguistic competence of written material (47). Results of the multilevel assessment should be used by food and nutrition practitioners to develop their plan for addressing racial and ethnic health disparities. Periodic reassessment and plan adjustment are necessary to ensure that the plan is responsive to the changing needs of the populations we serve.

Furthermore, food and nutrition practitioners are ethically obligated to inform, educate, and empower the public regarding healthy food consumption. They should develop partnerships with racially and ethnically diverse people and organizations to identify culturally/linguistically competent solutions and strategies. Lastly, all food and nutrition practitioners should strive for a racially and ethnically diverse workforce.

Clinical

Food and nutrition practitioners in the clinical setting interface with a diverse group of individuals such as patients, their families, and coworkers. Food and nutrition practitioners

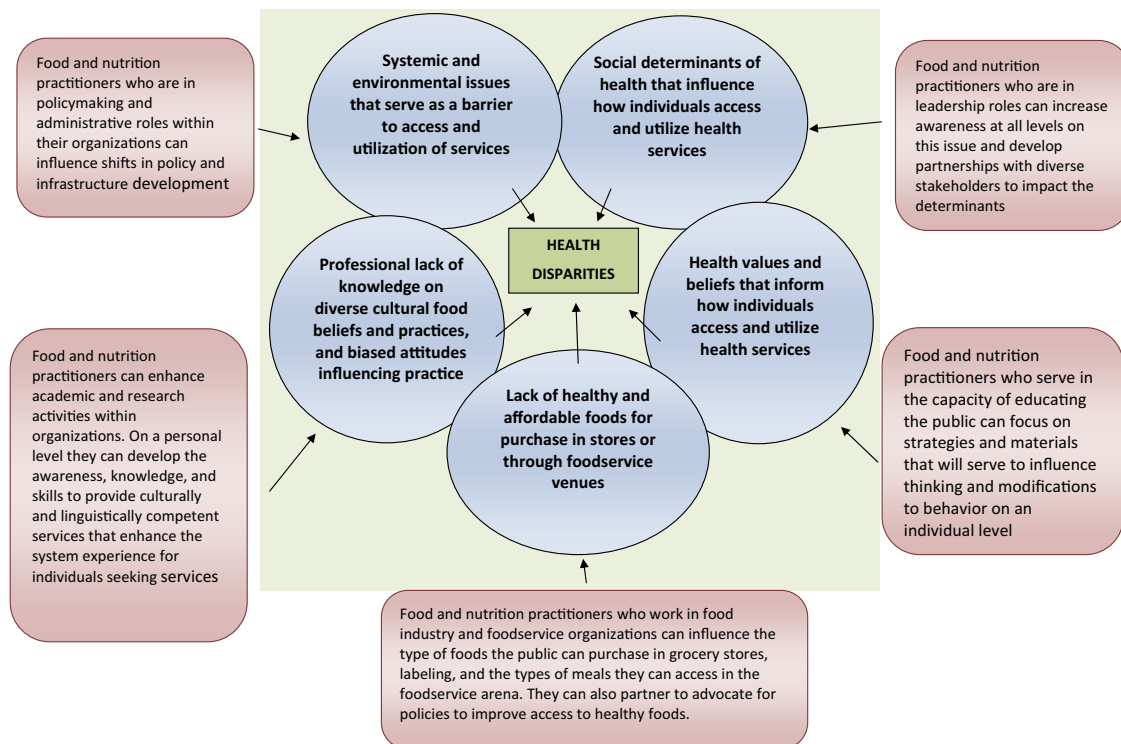


Figure 2. Ways in which food and nutrition practitioners can influence the elimination of racial and ethnic health disparities.

Racial and Ethnic Health Disparities: Differences in the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates in American Indians or Alaskan Natives, Asians, blacks or African-Americans, Hispanics or Latinos, and Native Hawaiians or other Pacific Islanders as compared to the health status of the general population (40).

Social Determinants of Health: Factors outside the person and the health care system that influences health and health outcomes (eg, education, job status, poverty) (41).

Food Deserts: A district with little or no access to foods needed to maintain a healthy diet (42).

Health Literacy: A wide range of skills, and competencies that people develop to seek out, comprehend, evaluate, and use health information and concepts to make informed choices, reduce health risks, and increase quality of life (43).

Health Equity: The absence of systematic disparities in health (or in the major social determinants of health) between groups with different levels of underlying social advantage/disadvantage (44).

Cultural Competence: Requires that organizations have a defined set of values and principles, and demonstrate behaviors, attitudes, policies and structures that enable them to work effectively cross-culturally and have the capacity to: 1) value diversity, 2) conduct self-assessment, 3) manage the dynamics of difference, 4) acquire and institutionalize cultural knowledge, and 5) adapt to diversity and the cultural contexts of the communities they serve (45).

Linguistic Competency: The capacity of an organization and its personnel to communicate effectively and to convey information in a manner easily understood by diverse audiences including persons of limited English proficiency, those who have low literacy skills or are not literate and individuals with disabilities (45).

Built Environment: Includes planned use, layout, and design of a community's physical structures including housing, transportation, and recreational resources (46).

Figure 3. Commonly used racial and ethnic health disparities terms.

are required to work closely with patients and families to promote healthier ways of eating, ways that may differ from their traditional patterns of meal planning and food consumption. It is important for food and nutrition

practitioners to recognize that many cultural food patterns are healthy, high in fruits and vegetables, and smaller in serving sizes than what is typically consumed by the majority of Americans. Food and nutrition prac-

titioners who are knowledgeable about the diets of the target population will be aware of ethnic or cultural food patterns that are beneficial and seek to encourage these behaviors rather than promote changes to com-

ply with the typical American diet. The focus should be to modify or make changes based on individualized dietary needs in accordance with cultural food preferences. Clinical food and nutrition practitioners who work with students need to model clinical professional behavior for these students. Food and nutrition practitioners in a clinic setting can:

- perform a cultural assessment in addition to the physical assessment of patients (IOM 5-6) (20);
- reflect on the findings of the cultural assessment and the needs identified before determining a plan of action (IOM 5-6) (20);
- act within the best evidence-based approaches as outlined by ADA's Nutrition Care Process (48), recognizing that tailoring an intervention does not necessarily mean deviation from the evidence, but instead that tailoring the intervention might increase adherence to the intervention (IOM 5-6) (20);
- ensure that interpreters are available as needed to address language barriers (IOM 5-9) (20);
- recognize that all food and nutrition staff (professional and ancillary) are important to reducing racial and ethnic disparities (IOM 5-11) (20);
- utilize cross-cultural approaches that empower patients to actively participate in treatment decisions and care planning (IOM 5-12) (20);
- develop materials that are culturally sensitive and linguistically appropriate for each patient/client; if possible, have these materials reviewed by someone familiar with that culture/language or employ the services of a company that specializes in cultural and linguistic evaluation (47) (IOM 5-12) (20);
- match students with culturally competent practice preceptors (IOM 6.1) (20); and
- work strategically to fully implement the Joint Commission requirements to advance effective communication, cultural competence, and patient-centered care for the hospital accreditation program when these become a reality (IOM-all) (20).

Food Manufacturing and Foodservice

The food manufacturing and foodservice industry can be pivotal players in

the elimination of health disparities related to food selection, preparation, and consumption. In the arena of manufacturing, food companies can continue to assist in influencing food consumption trends by improving the nutrient profiles of current products, developing new products that support current dietary guidelines, and by marketing these products. Foodservice industries that service large corporations and hotels in the private sector also have an opportunity to influence food trends. For example, they can make available nutrient-rich foods that are appealing and economical. Many hospitals and school cafeterias offer themed food experiences that are creative and fun. A theme day focusing on a particular culture features cultural information and healthy dishes that are appealing to students, staff, visitors, and patients. Food and nutrition practitioners within this arena can influence their organizations and the public by their practices and can:

- seek vendors who can provide healthy, culturally appealing options for their menus (IOM 5-11) (20);
- develop partnerships with grocery stores to stock a diverse selection of healthy foods (IOM 5-11) (20);
- provide cooking classes to educate consumers on how to incorporate healthy foods and food preparation techniques into their traditional ethnic diets (IOM 5-12) (20);
- develop meal plans with patients that meet nutrient guidelines and also cultural, ethnic, and religious practices (IOM 5-12) (20);
- adapt institutional menus that meet individuals' cultural preferences (IOM 5-12) (20);
- provide foodservice menus and written information in a manner that is tailored to the patient's language (IOM 5-12) (20);
- implement educational initiatives that focus on increasing public access to culturally and linguistically appropriate nutrition education materials and collaborate with culturally diverse groups to create and distribute the materials; consider use of Culturally and Linguistically Appropriate Services (47) or similar entity to evaluate appropriateness of materials (IOM 6-1) (20);
- evaluate the organization's cultural

and linguistic competency within client/patient satisfaction and improvement surveys (IOM 7-2) (20);

- develop healthy foods that are appealing in taste, appearance, and cost that meet the cultural needs of the target population (IOM 8-1) (20); and
- review food formulations and make ethical decisions around the use of saturated fats, *trans* fats, sugar, salt, and other additives (IOM 8-2) (20).

Public Health and Community Nutrition

Food and nutrition practitioners in public health and community nutrition have unique opportunities to influence factors affecting health disparities at the individual and the population level. Food and nutrition practitioners work with clients enrolled in child nutrition assistance programs (eg, the Special Supplemental Nutrition Program for Women, Infants, and Children and the National School Lunch Program), adult care food programs, and other nutrition community programs. They provide information and direct services to some of the most vulnerable populations from many different cultures and ethnicities. Others in community nutrition work at the population level. They collect and use data to identify nutritional deficits and to evaluate programs put in place to address those deficits. They provide prevention messages and work to effectively implement policies and programs to populations that are diverse in race, ethnicity, culture, and economics. Like those in other practice areas, their application of cultural competence and health literacy concepts is important. However, they must also be fully aware of the interplay between health disparities and health equity and how the social determinants of health affect their communities. For example, the ability to generate advocacy around issues related to hunger, food access, and food deserts to design policy interventions is crucial. Public health food and nutrition practitioners can be prepared through didactic training, professional development, and experience to:

- incorporate social marketing techniques, market segmentation, and

health literacy (defined in [Figure 3](#)) into programmatic considerations and ensure that health promotion messaging is geared to the needs and characteristics of the target population (IOM 5-6) (20);

- ensure that interpreters are available as needed to address language barriers (IOM 5-9) (20);
- include participation from the target population in the design of new programs and services to ensure cultural and linguistic competence (IOM 5-10) (20);
- build capacity for improved health outcomes within local communities (IOM 5-10) (20);
- utilize, where appropriate, promoters or lay-health workers to assist individuals in navigating health and social services systems, improve service access, and the delivery of health education in their communities (IOM 5-10) (20);
- collaborate with a variety of partners at the community and grassroots level to develop strategies to eliminate health disparities (IOM 5-10) (20);
- establish relationships with agencies that address social determinants of health (eg, Supplemental Nutrition Assistance Program offices, unemployment offices, education services) to make appropriate referrals (IOM 5-11) (20); and
- implement community assessment models that accurately present a profile of the community and determine the needs of diverse populations (IOM 7-1) (20).

Food and nutrition practitioners working in public health should gain knowledge of the target population to better understand health beliefs, increase their cultural competence, and enhance the quality of health care of those they serve. This can be accomplished through discussions with patients/clients, sampling varied ethnic foods, and exploring the communities where these populations reside.

Educators and Researchers

A diverse workforce will be useful in addressing health disparities (20,48,49). According to CDR, the number of food and nutrition practitioners, stratified by race and ethnicity, fail to reflect the changing demographics of the population (50).

Currently 84% of RDs are white, 5% Asian, 2% black, and 3% are Hispanic/Latino. ADA's efforts to increase the number of food and nutrition practitioners from minority populations by attracting racial and ethnic minorities to dietetics practice are ongoing. It is important for the organization and food and nutrition practitioners, including educators, to better understand the challenges that minorities face that prevent them from entering the profession. In addition, to have an influence on health disparities, educators must:

- increase understanding of cultural beliefs and attitudes by incorporating course work on cultural food habits (IOM 2-1) (20);
- be mindful of the research experiences of racial and ethnic minorities when approaching these communities about additional research (IOM 2-1) (20);
- mentor minority colleagues in academic settings who are less experienced (IOM 2-2) (20);
- prioritize recruiting underrepresented populations into dietetics programs as well as mentoring of culturally diverse students (IOM 5-3) (20);
- seek out the best models for culture competency curricula that teach what has been referred to as the "intangible," a subject matter that is not easily grasped (IOM 5-6) (20);
- recognize the expertise of community partners who represent racial and ethnic minority populations and compensate them at a rate similar to other experts on the team (IOM 5-10) (20);
- provide resources to build capacity within communities that will increase exposure to and understanding of health data and assist grassroots organizations in evaluating their efforts and increase their collaboration with the academic and research community (IOM 5-11) (20);
- provide meaningful educational experiences that do not oversimplify the dynamics of culture or reinforce biases or stereotypes (IOM 6-1) (20);
- seek grants for research that add to the body of knowledge on health disparities (IOM 8-1) (20);
- use community-based participatory research principles when conduct-

ing research with ethnic and minority communities (IOM 8-1) (20); and

- recognize that many current theoretical models may be inadequate for addressing vulnerable populations and other research and interventions models must be explored (IOM-8-1) (20).

Many educators understand the urgency and the ramifications of health disparities, but fail to see their role in affecting it (20). However, the pipeline for ensuring the training of minority students rests largely within academia and, therefore, providers of dietetics education play a crucial part in providing training and opportunities for cultural awareness that ultimately reduce health disparities.

Educators also play a role in terms of their research agenda. Health equity and health disparities remain complex, and research efforts to untangle the contributing factors as well as to identify and promote best practice interventions to reduce disparities are essential. Many interesting research questions exist. For example, there is very little data on non-physicians, in terms of patient-practitioner concordance in the care process. RDs regularly interact directly with diverse populations discussing topics related to their culture and diet, yet little is known about the influence of these interactions or how they could be improved.

The following recommendations can be implemented regardless of the area of practice. They have relevance and are actionable in the clinical, public health, foodservice, and education and research arena:

- increase understanding of cultural beliefs, practices, and attitudes by participating in relevant in-service training programs (IOM 2-1) (20);
- acknowledge personal biases and change behaviors accordingly—use a standardized system for self-assessment (National Center for Cultural Competence) (IOM 2-1) (20);
- avoid approaches to patients/clients that are based on stereotypes (IOM 2-1) (20);
- work to recruit and employ staff from underserved populations (IOM 5-3) (20);
- employ a racially and ethnically diverse staff (IOM 5-3) (20); and
- act within the best evidence-based

approaches as outlined by ADA's Nutrition Care Process and Model (50) (IOM) (20).

The following case study presents a practical application of interventions that can be implemented by food and nutrition practitioners.

CASE STUDY

James Vaughan lives in a small rural town in eastern North Carolina. He is a 65-year-old black man who has worked all his life in the tobacco fields. He lives in a rooming house for \$75 per week and gets \$400 per month in Social Security benefits. He has little money for food, so his diet consists largely of noodles and soda pop, or fast-food meals when he is in town. If he is able to make it to church, he has a good meal as many of his favorite foods are offered in the church fellowship hall, and he takes advantage of the access to food. Mr Vaughan has been sick off and on for the past 2 years, but he has never been to a doctor in his life. He has relied on Ms Earline, a woman in the community who mixes bags of herbs (poultices) that he placed on the hurting body part that made him feel better for a few days. Ms Earline died a few months ago, leaving Mr Vaughan without a source of care.

During Mr Vaughan's last bout of illness, Mr Combo, his friend, took him to the local community clinic where he saw a physician who gave him prescription medicines, a diabetes educator who talked to him about taking care of his feet, and an RD who gave him a meal plan to help him lose weight and control his blood sugar. Clinic staff asked him to return in 6 weeks to determine whether his blood sugar level had improved. Mr Vaughan did not think he had a weight problem, being no heavier than most of the people in his family. Also, many of the items on his meal plan were not foods he would normally consume. For example, fresh produce is hard for him to find and costs too much, he rarely eats salads, drinking milk every day makes him feel sick, and his living arrangement does not allow for him to do any cooking. After 4 weeks, Mr Vaughan, who plays checkers with other men in the rooming house every other day, does not come down to play. Mr Combo checks on him, finds

him unconscious and rushes him to the hospital.

Mr Vaughan is diagnosed with diabetes and hypertension and is in need of dialysis. He is afraid of the hospital and strange people. The food is not too bad, and includes some foods he likes, such as sweet potatoes and greens. However he only eats half of his meal and saves the rest because he is afraid he will not get anymore. An RD, who is white, comes by to tell him what to eat but he is uncomfortable responding to her questions or even looking her in the eye. He certainly does not feel comfortable asking her many of the questions on his mind. After 5 days, Mr Vaughan is discharged with a bag of medicine, a telephone number to call for Meals on Wheels, and another meal plan that looks like the one the RD at the community clinic gave him. He also has a list of people to call for follow-up appointments, including the number for a home health agency to help him with activities of daily living and blood sugar checks. There are a number of points where food and nutrition practitioners have the opportunity to influence care for Mr Vaughan. They are outlined here, suggesting alternatives or additional actions or considerations that have some relevance to this case.

- Marla Page is the county public health nutrition director at the community center where Mr Vaughan initially received services. A recent needs assessment she conducted identified evidence of nutrition-related health disparities and potential causes, including eating foods high in fats and in sugar. She presented her results to the county health director and pushed for this information to be included in the county health director's report to the county council. At the conclusion of the report, the council developed a subcommittee to address primary and secondary prevention initiatives that would affect the nutrition-related concerns that had been identified. In conjunction with those efforts she plans to assist her health director in establishing a coalition to work on the community health improvement plan that must follow her assessment. The coalition will include stakeholders, including citizens from minority pop-

ulations in the community who are better informed on some of the socioeconomic and environmental factors that may be contributing to poor nutrition intakes and poor health. The interventions proposed by the coalition will be integrated into county prevention initiatives. Ms Page provides education to local and state legislators on public health and minority health issues when she has opportunities to do so. Internally, she ensures that staff in-service programs occasionally include topics such as cultural competence, cross-cultural communication, and health literacy.

- Carla Saunders is an RD who worked with Mr Vaughan at the community clinic. Based on her understanding of the contextual issues, she tailors one of the standardized diabetic diet sheets to meet Mr Vaughan's needs, considering cultural preferences, food access, foods usually eaten, income, and available cooking facilities. She knows that he attends a local church and she plans to work with local faith-based partners to provide health promotion information to a number of churches. Understanding the prevalence of obesity in minority populations, she addresses the issue of his weight with sensitivity, but with enough specific information to ensure that Mr Vaughan understands the risks and benefits of complying with her recommendation. She has a practical approach to health literacy, using the Ask Me 3 approach (51). She provides clear answers to the three questions that are important to Mr Vaughan, namely details on his main problem, specifics about what he needs to do, and why it is important for him to follow her recommendations. Ms Saunders also provides referral information on selected social services programs that he will need. In addition, she talks to Mr Vaughan about the importance of finding a medical home; that is, a medical provider who routinely provides him with care.
- Deborah Keith is the RD who covers cardiovascular service in the community hospital where Mr Vaughan was taken. Ms Keith is keenly aware of the nutrition-related health disparities affecting her patient population as well as

the challenging food environment. On her initial meeting with Mr Vaughan, she could tell from his one-word answers and his downcast eyes that he was uncomfortable. Abandoning her planned counseling session she instead simply introduced herself and told him they would discuss food on her next visit. Ms Keith went to visit Mr Vaughan the next day and asked him about his usual intake. She and Mr Vaughan agreed upon one change that he would make to his diet. She told him about Meals on Wheels, contacted the food assistance program office, and made a referral to an outpatient RD. Ms Keith had taken courses on community nutrition, including cultural competence, at the university where she trained. Her academic and work experiences are both helpful in assisting her in working with her patients. Her professor for these courses, Dr Reagan, has sometimes invited her to speak to her class and to dietetic interns on cultural competency related issues in the clinical setting. At her weekly staff meeting, Ms Keith suggested that they invite a representative from the food assistance program office and a public health nutritionist to provide in-service training on the available community resources to hospital staff.

- Dr Regan teaches at the local university. She is pleased that her class is hardworking and committed to nutrition. She recognizes that her students do not reflect the communities they will serve. Dr Regan works diligently to find experiences for her students to work with people from diverse racial and ethnic populations. She has obtained permission from the department chair to write a grant for a pipeline program that will allow her to engage and recruit students from a local high school with a high minority student body. She teaches the 3-hour required course on cultural competence and offers a 1-hour seminar on the social determinants of nutritional health. Dr Regan has successfully sought opportunities to present on these topics at her state dietetic association meeting and has accepted invitations to provide in-service education on cultural competence at local health care facilities including the local public

health department. Her former students work in a number of different areas of nutrition including public health, clinical, food science, research, and education as RDs or DTRs. She maintains communication with many, often inviting clinical, public health practitioners, and other colleagues to do presentations in her classes. Dr Regan also shares through E-mail minority health grant requests for proposals with the nutrition director at the health department. This is part of her effort to continue to actively seek collaboration between her university and those practicing in the field. Her networking efforts also include participation in community committees addressing minority and other public health issues.

- Melissa Carr is a DTR at the hospital, and she assisted Mr Vaughn in completing his daily foodservice menus. She is aware that the hospital foodservice offers selections that are appealing to a variety of racial and ethnic populations and helps patients identify foods they like from the low-energy menu.

This case study is fictitious. However it reflects real situations and concerns that in the context of this case affects patients/clients and food and nutrition practitioners. In a more urban setting variations would occur, but many of the same health and food access issues would exist. Food and nutrition practitioners reviewing this case will recall actions that they have taken in similar situations or will identify actions that could possibly have been taken if they had interacted with Mr Vaughan. Efforts must expand beyond simply providing dietary counseling. Additional efforts must be undertaken to understand patients' or clients' world-views, health beliefs, and values; to communicate in ways that are effective; to seek additional resources, as needed; and to confirm that interventions are realistic so that they have greater potential to achieve the desired outcomes.

CONCLUSIONS

Racial and ethnic health disparities affect minority populations disproportionately, but in reality affect us all. These disparities are often couched in history and are complex in nature. The depth and breadth of health disparities require interventions at different levels by mul-

tidisciplinary teams. Actions must be taken where information available. Conceptualizing issues through the use of the IOM or other models is a good place to begin. It allows consideration of multiple interventions, including individual and organizational self-assessment; increased awareness, communication, and collaboration with stakeholders; addressing staff and other training needs; processes for identifying population needs and service gaps; and utilizing viable and sustainable system approaches that influence policy and include monitoring and evaluation components.

Food and nutrition practitioners play a key role in reducing health disparities. They can be most effective providing care that is equitable, respectful, and compatible with the language, culture, and health beliefs of those they serve.

Although this article attempts to highlight factors associated with racial and ethnic health disparities, it is not intended to be an exhaustive review of the topic. Nor is it intended to be dismissive of health disparities experienced by persons who are vision, hearing impaired, or other disabilities; by persons due to geographic location; by lesbian, gay, bi, or transgendered community; by persons with limited English proficiency; or those experienced by different sexes. Health disparities of any type are important to ADA and additional attention should be given to these areas as well.

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