INTRODUCTION

During the last two decades, there has been a shift from communicable to non-communicable diseases (NCDs) as the leading causes of morbidity and mortality globally. According to the Global Burden of Disease Study 2010 (GBD 2010), the main NCDs – which include cardiovascular diseases (CVD), diabetes mellitus, cancer and chronic respiratory diseases (CRD) – accounted for over half (54%) of disability and about two-thirds (65.5%) of deaths in adults worldwide (1–4). NCDs have had a particularly negative impact on women where they account for approximately one-third (32.7%) of all female deaths (versus 27.4% in men) (1). The effect is greater among women in low- and middle-income countries (LMICs) compared to their counterparts in high-income countries (HICs) (5). Moreover, communicable diseases still predominate in most LMICs (6–9) and exacerbate NCDs through their interactions.

The global health transition, which is more advanced in HICs and middle-income countries (MICs) (6–10), is partly attributable to a rapid nutrition transition – changes in dietary patterns and nutrient quality of the diet – that is related to globalization, urbanization and a demographic transition. Unhealthy lifestyle factors (e.g., poor quality diets, immoderate alcohol and tobacco use, physical inactivity) have promoted a rise in metabolic risk factors (overweight, obesity, hypertension, hyperglycemia, and dyslipidemia), which contribute significantly to NCDs (3, 4, 11). Further, household air pollution (HAP) from solid fuels (coal and biomass) is ranked as the top environmental risk factor worldwide (11, 12). Whereas overweight and obesity are on the rise, under-nutrition in women also has implications for the global NCD epidemic. Infants born to undernourished mothers have a higher risk of developing NCDs in adulthood compared to those born to well-nourished women. This is especially pertinent to South-East Asia and sub-Saharan Africa (SSA), where high levels of under-nutrition co-exist with, and complicate the condition of excess weight (5–10). NCDs thus affect the health of both women and that of their children.

The GBD 2010 found that the leading risk factors for NCDs among women were hypertension, poor diet, and HAP. Dietary factors that contributed the most to the NCD burden were diets low in fruits and high in sodium, as well as those low in nuts and seeds, whole grains, vegetables, docosahexaenoic acid (DHA), and eicosapentaenoic acid (EPA) (13). While lifestyle factors contribute independently to NCDs, they often occur together and form distinct patterns (4, 14–23). Metabolic risk factors similarly cluster among themselves as well as with lifestyle factors and increase risk for NCDs (24–30).

The health and nutritional status of women globally will be discussed in this report, and studies that have evaluated the associations of dietary and lifestyle patterns with NCDs will be reviewed. Strategies being utilized in various regions of the world to combat NCDs will also be discussed.

HEALTH STATUS OF WOMEN

Non-communicable Diseases

CVD, mainly coronary artery disease (CAD) and stroke, contribute the most to the NCD burden. Except for SSA where Human immunodeficiency virus/Acquired immune deficiency syndrome (HIV/AIDS) is the number one killer, CVD are the leading cause of death due to NCDs and the second most frequent cause of mortality overall, accounting for 10.7% of all deaths in women globally (1).
FROM THE CHAIR  Barbara E. Millen, DrPH, RD, FADA

I cannot think of a more fitting way to wrap up this fantastic year than with a newsletter on global nutrition and women's health. My colleague, Dr. Ruth Kimokoti, ably accepted the task of providing an overview of the major nutrition-related health problems that women face throughout the world today—no small task! Within this issue, she aptly characterizes malnutrition as a continuum of risk that includes nutrient deficiencies and wasting on one extreme, to conditions associated with nutritional excesses, such as obesity, on the other. She documents the alarming and rising rates of obesity and diet-related chronic diseases throughout the world, including heart disease, hypertension and stroke, diabetes and certain cancers. She also reports on the coexistence of these non-communicable and preventable diseases with HIV and AIDS, and conditions of profound undernutrition in many parts of the world, particularly sub-Saharan Africa. Fortunately, leadership and partnerships between government and non-governmental entities are beginning to systematically target these concerns in order to improve the health status of women and their families internationally.

This issue also highlights DPG members whose careers have taken them to different parts of the world to work on these problems. They share their unusual experiences here. My own career for many years allowed for participation in a World Health Organization (WHO) initiative called InterHealth. Countries in every WHO region of the world came together to consider how to best handle the rising rates of chronic diseases in their countries, while remaining cognizant of prevalent malnutrition in certain at-risk population subgroups. What was particularly interesting was the InterHealth expert panel's understanding and consensus that underlying each of these conditions is a common etiology and solution. Poor lifestyle behaviors are the root causes of preventable diseases, and optimal nutrition (along with weight management, physical activity, tobacco abstinence, and alcohol moderation) plays a central role in prevention and treatment. InterHealth viewed prevention from an 'ecological perspective' using a public health model, targeting both the needs of individuals as well as populations. Not only were more traditional health systems and community services and programs evaluated as methods of health promotion and disease prevention (including risk factor screening and dietary counseling), InterHealth also considered how public policies might be changed to effect health and complement health care and public health measures (such as the regulation of prices on ‘healthy’ or ‘less healthy’ foods). InterHealth laid a framework for WHO and its global collaborations on non-communicable disease prevention today.

In the US today, federal programs like WIC, Elder Nutrition and SNAP now use the US Dietary Guidelines as standards of diet quality through which to improve the nutrient density and dietary patterns of the populations they serve. Many public schools take an ecological approach, embracing menu innovations and system-wide changes that include altering their environments to impact what foods and beverages are available to purchase in cafeterias and vending machines, and promoting healthy options in their fundraising activities. New collaborations between farmers and other agribusinesses, public health professionals, including dietitians and nutritionists, ecologists and others, are working to promote dietary patterns among Americans that are optimal, sustainable and compatible with a healthy planet.

In June 2013 the National Heart, Lung, and Blood Institute of the National Institutes of Health announced its intent to partner with professional organizations to translate the recommendations of its recent expert panel reports on Obesity Prevention and Cardiovascular Disease Prevention into clinical practice guidelines. As a working group panel member on these reports and recommendations, I hope that RDs, including those in WH DPG, will be inspired by their existing roles, and seek new opportunities to advance their practices in weight management, nutrition counseling as a component of solo and group practice, and in comprehensive lifestyle intervention, as well as medical nutrition therapies relating to cardiovascular and obesity-related conditions.

These are potentially very exciting times for RDs. We should never lose sight of the evidence base that firmly underpins the efficacy of nutrition intervention and identifies RDs as powerful leaders in nutrition education, communications and counseling; lifestyle intervention; healthcare and public health programming; and food systems management. All of these domains play critical roles in improving the nutritional status, health and well-being of individuals of all ages and the population-at-large. Take a close look in this newsletter issue. I hope you find it stimulating as you navigate your careers in women's health. Remember, too, that we can have considerable impact as individuals and in our collaborations together, and with other professionals—we can change the world!

As I leave the office of Chair and pass the mantel to my very capable colleague, Kathleen Pellechia, I want to extend a warm and sincere ‘thank you’ to the Women's Health DPG elected Executive Committee members, and to our incredible volunteer leadership. Without this rather large group of capable women, none of the extraordinary accomplishments of this year would have been possible. We have grown to over 800 members strong and become one of the larger Academy DPGs. We have produced regular evidence-based newsletters and webinars on timely topics, which we archive and make available for repeated viewing. We have provided support to an Academy-driven Evidence Analysis Library systematic review of the peer-reviewed literature on Malnutrition in Pregnancy. We will continue to collaborate with other Academy DPGs and external groups in our mission to sponsor scientific programming and member events at FNCE and throughout the year. We are poised to take several more giant steps forward as the WH DPG, and I am very pleased to continue in a leadership role as Past Chair to advance these efforts and our mission to “Optimize the future of women's health at all ages” by ‘Empowering (our) members to be the most valued source of nutrition expertise in women’s health (at all ages and stages) throughout the lifespan.”

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We’re on the web!
www.womenshealthdpg.org
In grade school I had a pen pal from Australia. For a few years we mailed hand-written letters and photographs between Wisconsin and Queensland, elated when something new dropped into our mailboxes. Correspondence abroad continues to excite me, and I regularly keep in touch with individuals from Japan, New Zealand, British Columbia and beyond; however, today’s messages zoom away at the click of a few buttons via the computer or smart phone, and are received in mere moments. Only so often does it register just how simple and far-reaching my connections and abilities to be influential have become.

These technological advances are great for personal pleasure and networking, but also allow us as nutrition professionals to better help our neighbors — locally and globally — live more healthfully. Entirely new opportunities are within our reach, and we can choose to act from the comfort of our own homes, or we can pack up and spread our messages abroad in almost any location the world over. Amazing!

We chose to focus this issue of the WHR on global nutrition and women’s health. The feature article comes from an expert in the field, Ruth Kimokoti, MD, MA, MPH, who provides a fascinating look at non-communicable diseases in women around the world. She reviews the associations between these disease states with diet and lifestyle practices, and highlights current nutrition recommendations and intervention strategies to promote prevention. In addition, several of your fellow WH DPG members have embraced opportunities to expand their borders in practice. For this issue we interviewed two inspiring individuals, Jean Cox and Gita Patel, who chose dietetics paths that took them each to amazing places.

From a more local perspective, Jamillah Hoy-Rosas explores women’s health in the US, specifically focusing on food insecurity and its outcomes in the perinatal period. Be sure to also review the many ways the Academy and DPG currently support federal policies and programs to promote better nutrition and nutrition guidance within our borders, such as SNAP-Ed and the Older Americans Act.

Whether you’re more interested in global women’s nutrition efforts or those closer to home, technical articles and updates or candid experience pieces, this issue has something for everyone. I hope you enjoy the reading. Perhaps what you find in these pages will strike a chord and inspire you to explore new opportunities… new hemispheres even! Cheers!

As always, feel free to contact me at whdpgpublicationseditor@gmail.com with any questions or concerns.

FROM THE EDITOR  Heather A. Goesch, MPH, RDN, LDN

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Cancers of the oral cavity, nasal cavity and nasal sinuses, pharynx, larynx, esophagus, lung, breast, stomach, pancreas, liver, kidney, urinary bladder, endometrium, cervix, prostate, colon, rectum, as well as myeloid leukemia, are associated with lifestyle factors (11, 39, 40). In 2008, six million women had cancer. Breast cancer is the most prevalent cancer in women globally (23% of all cancers in 2008) with incidence rates varying from 19.3/100,000 in Eastern Africa to 89.7/100,000 in Western Europe. Breast cancer is also the leading cause of cancer death in women in both HICs and LMICs, accounting for 14% of total cancer deaths. Cervical cancer is the second most common cancer in women overall and in LMICs (86% of the cervical cancer burden) where it accounts for 13% of all female cancers. It is the most frequently seen cancer in women in Eastern Africa (age standardized rate [ASR] >30/100,000), South-Central Asia (ASR 24.6/100,000), and Melanesia. Rates are lowest in Western Asia, Northern America and Australia/New Zealand (ASRs <6/100,000). Smoking is a causative factor but virtually all cases are linked to genital infection with human papilloma virus. Breast and cervical cancers combined account for 4.2% of all female deaths (1). Colorectal cancer in women is the third most frequent cancer and second most common in HICs (~59% of colorectal cancer cases). Incidence is highest in Northern America and Western Europe, and lowest in Central and Western Africa, and South-Central Asia. Lung cancer is the fourth most prevalent cancer of women (8.5% of all cancers) and the second leading cause of death from cancer globally (12.8% of the total). Northern America has the highest lung cancer incidence rate (2nd most frequent) and Central Africa the lowest (15th most frequent). Smoking accounts for an estimated 85% of lung cancers in women.

Chronic obstructive pulmonary disease (COPD [mainly bronchitis and emphysema]) and asthma are the commonest chronic respiratory diseases, and account for 2.1% of all deaths in women (1).

Comorbidity among NCDs: Diabetes is associated with a 2- to 4-fold risk for CVD, and CVD is the leading cause of morbidity and mortality in individuals with diabetes (41, 42). Women comprise around 38% of new TB cases annually. In 2011 about one-third of deaths from TB occurred in women, making TB one of the top killers of women worldwide (44, 45). TB accounted for 4.6% of all deaths in women in 2010 (1). Asia and Africa have the highest TB burden − 40% of the world’s cases are in India and China (45).

Comorbidit y among communicable diseases: HIV/AIDS is a major risk factor for TB, and individuals with TB easily succumb to HIV infection (43, 45).

Interaction of Non-Communicable and Communicable Diseases
Interaction among non-communicable and infectious diseases is likely to worsen the NCD epidemic. HIV infection causes cardio-metabolic complications, as do anti-retroviral therapies. Increased anti-retroviral treatment may potentially have a negative impact particularly in SSA (43, 46, 47). Similarly, TB and diabetes are common comorbidities. TB can worsen glycemic control in individuals with diabetes, and diabetes is associated with 2- to 3-fold risk for TB (48).

NUTRITIONAL STATUS OF WOMEN

Malnutrition
Malnutrition is a continuum of disorders ranging from nutritional deficiencies to excesses that include underweight/undernutrition\(^1\) (BMI <18.5 kg/m\(^2\)), <2 standard deviations below the WHO reference median (7), or low dietary energy supply (49), overweight (BMI 25.0-29.9 kg/m\(^2\)), and obesity (BMI ≥ 30 kg/m\(^2\)); furthermore micronutrient deficiencies become prevalent owing to poor diet quality (7–9, 49, 50).

Overweight and obesity
In 2008 about 1.4 billion adults were overweight or obese (BMI ≥ 25kg/m\(^2\)); of these, 297 million were obese women (51). In HICs, obesity rates are greater in rural areas and among the poor. The converse is true of LMICs − 37.2% of urban women and 19% of rural women are overweight or obese in Africa, Latin America, and the Middle East. However, rate increases in the last decade were much higher among rural women in North Africa, Latin America, and the Middle East (8).

Underweight
Undernutrition, in terms of dietary energy supply, affects 868 million individuals. The majority (98%) live in LMICs, mainly in Southern Asia (35%) and SSA (27%) (49).

Micronutrient deficiencies
The most common micronutrient deficiencies are anemia and vitamin A and iodine deficiency. In the high-burden regions of Africa, Asia, South and Central America, and the Caribbean, anemia (hemoglobin <12g/dL) affected about 40% of women overall, especially Africa (43%) and Asia (41%) in 2007. Prevalence was highest in South-Central Asia, mainly India (~60%), and lowest in Central America (20%). Vitamin A deficiency (serum retinol <20 μg/dL or <0.7 μmol/L) was a severe public health problem (prevalence >30%) in East and Central Asia as well as in East, Central and West Africa. Iodine deficiency, as indicated by goiter prevalence, affected 700 million people particularly in South-Central Asia; prevalence was lowest in the Caribbean (50).

\(^1\) Note: Underweight and undernutrition are used interchangeably in available literature.

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**Dietary intake**

The nutrition transition has compromised diet quality mainly in LMICs and among low-income populations in HICs (8, 11, 50). Food and Agriculture Organization (FAO) data on foods available for consumption indicate that over the last four decades, available energy for consumption increased globally by approximately 450 kcal/person/day, and by more than 600 kcal/person/day in LMICs. The increase has been largest in China (~1000 kcal/person/day) and smallest in Africa (~140 kcal/person/day). During the same period, dietary energy from animal sources more than doubled from 160 to 340 kcal/day, whereas energy from plant sources increased from 1900 to 2340 kcal/day in LMICs. Comparable changes were evident in HICs but with a larger percentage of energy from animal sources at 940 kcal/day. Increased energy and animal-source food intakes has somewhat reduced dietary deficiencies, while increased availability of refined and processed foods has led to decline in consumption of nutrient-rich foods. Similarly, intakes of meat as well as milk and dairy products rose by 150% and 60% respectively in LMICs. By 2030, consumption of animal products is projected to increase by 44%. Dietary energy available from grains, especially wheat and rice, slightly declined in LMICs, a trend that is expected to continue for the next two to three decades (11, 30, 49, 50, 52, 53).

Fat availability has increased globally except in SSA. Palm oil intake is increasing in South-East Asia, and olive oil is now consumed widely in most European countries (30, 52, 53). In a review on global dietary fat intake (% of energy), increases were evident across world regions. The highest intakes were in North America and Europe (≥35% of energy) and the lowest in China (11%) and Tanzania (13%). The ratio of saturated fatty acids (SFAs) to the sum of monounsaturated fatty acids (MUFAs) and polyunsaturated fatty acids (PUFAs) [SFAs / (MUFAs + PUFAs)] was high in most countries. The ratio was lowest in China (0.36) and highest in India (1.14). A ratio of >0.5 denotes that the proportion of SFAs is unfavorable (54).

Availability of vegetables and fruits increased in Europe, Latin America, North America, and South-East Asia over the 40 years per the FAO data, but has declined in East and Central Africa since the 1980s. Mean vegetable and fruit intake globally is generally below the recommended minimum intake of 400 g/day and consumption is lowest in LMICs. Intakes range from 120 g/day in India to 350 g/ day in Europe, with higher consumption in Mediterranean countries, such as 550 g/day in Spain. Prevalence of low vegetable and fruit intake (<5 servings/day) is highest in South-East Asia (80%) and lowest in Western Europe (42%) (11, 49, 55).

The past 30 years have witnessed a marked worldwide increase in the consumption of sugar-sweetened beverages (SSBs), which include soft drinks, fruit juices, iced tea, energy drinks, and vitamin water drinks. For instance, intakes of SSBs in the United States increased nearly 3-fold between the late 1970s (3.9% of energy) and 2001 (9.2% of energy). Food availability data from China, India, Vietnam, Thailand, and other South-East Asian countries show rapid increases in consumption of these beverages, as well as large per capita consumption across the Americas, Germany, Australia, Spain, and Great Britain. SSB intake is equally high in the Philippines and South Africa, and in Mexico SSB consumption accounts for ~10% of total energy (56).

Mean sodium intakes in most countries, with the possible exception of Africa, Samoa, and Venezuela, are >100 mmol/day (2.3 g/day), and are highest (>200 mmol/day (4.6 g/day) in many Asian countries (57).

**NUTRITION-RELATED LIFESTYLE FACTORS IN WOMEN**

Lifestyle factors including diet, alcohol and tobacco use, physical inactivity and sedentary behavior tend to cluster together as lifestyle patterns and are associated with disease risk (4, 14–23).

In 2005, per capita mean alcohol consumption in women was six liters. HICs (North America, Europe, Argentinia, Australia, New Zealand) had the highest intakes, whereas North Africa, SSA, the Eastern Mediterranean Region, and Southern Asia had the lowest (58–60).

Tobacco use (active and passive) prevalence ranges from 3% in Africa to 22% in Eastern Europe. Evidence suggests men's smoking rates are declining while those of young women, especially in MLCs, are rising as they are the new targets of tobacco companies (60, 61).

Household air pollution is the leading risk factor for NCDs among non-smoking women in LMICs. Almost half the global population (3 billion), predominantly in rural Africa, Central and South America, and Asia (>90%), uses solid fuels for residential energy needs. Both biomass and coal confer risk for COPD, and coal is additionally associated with lung cancer. The total number of people relying on solid fuels is projected to increase from 2.68 billion in 2009 to ~2.77 billion in 2015, but the percentage is estimated to decrease from 54% to 51% over the same period. The greatest declines will occur in China and India – by 2030 roughly half the population of both countries will be reliant on solid fuels (11, 12).

Overall, one-third of women are physically inactive. The prevalence of physical inactivity is lower in LMICs (21%) than in HICs (48%); prevalence is lowest in South East Asia (19%) and highest in the Americas (50%) and the Eastern Mediterranean Region (50%) (59, 62).

**METABOLIC RISK FACTORS IN WOMEN**

Between 1980 and 2008, mean BMI in women increased by 0.5 kg/m^2/ decade, and obesity prevalence almost doubled from 7.9% to 13.8%. Oceania had the largest increases in both BMI (1.8 kg/m^2/decade) and obesity prevalence; Central and Eastern Europe, and Central Asia had the smallest (BMI increase <0.2 kg/m^2/decade).Women in Nauru have the highest mean BMI (35.0 kg/m^2) and three-quarters (74.8%) are obese. In HICs, women in the United States have the highest mean BMIs. Conversely, Bangladeshi women have the lowest mean BMI (20.5 kg/m^2) and are the least obese (1.4%) (51, 63).

Population-based studies on abdominal obesity are limited. Among patients attending primary care physicians’ clinics in 63 countries in 2005, 48% of women were abdominally obese (waist circumference [WC] >88 cm) and mean WC was 88.7 cm. Mean WC was largest in the Middle East (93.4 cm) and smallest in Eastern Asia (80.2 cm) (64).
Mean systolic blood pressure (SBP) decreased by 0.8 mmHg/decade overall between 1980 and 2008. Mean SBP decreased in Western Europe and Australasia (≥3.5 mmHg/decade) but increased in Oceania, East Africa, South and Southeast Asia, and West Africa (1.0–2.7 mmHg/decade). In 2008, mean SBP was highest in East and West Africa (≥135 mmHg) and lowest in Australasia (117.6 mmHg) (65). Oceania had the largest rise in fasting plasma glucose (FPG) (0.3 mmol/L) and has the highest mean FPG (6.08 mmol/L), whereas high-income Asia-Pacific has the lowest (5.2 mmol/L) (38). Total cholesterol minimally changed (decreased overall by <0.1 mmol/L/decade), and is currently highest in Australasia, North America, and Western Europe (5.2 mmol/L) and lowest in SSA (4.3 mmol/L) (66).

Metabolic risk factors are shown to cluster (25). For instance, prevalence of hypertension and dyslipidemia increase in the presence of diabetes (41, 42). Likewise obesity confers risk for hypertension, hyperglycemia, and dyslipidemia (26, 67). The cluster of cardiometabolic risk factors comprise the metabolic syndrome, which is defined as ≥3 of the following components: abdominal obesity, hypertension, hyperglycemia, low HDL-cholesterol, and hypertriglyceridemia (24). Prevalence of the syndrome among women ranges from 1.7% in Japan to 58.7% in Brazil (68).

MECHANISMS THAT LINK LIFESTYLE FACTORS AND NON-COMMUNICABLE DISEASES

Inflammation and insulin resistance are key mechanisms underlying the development of NCDs (26, 69, 70). Dietary factors such as refined carbohydrates and animal fat are postulated to induce oxidative stress that stimulates secretion of pro-inflammatory cytokines (71, 72). Other foods and nutrients including vegetables, fruits, fiber, and light to moderate alcohol intake are anti-inflammatory and suppress oxidative stress (71, 72). Alcohol also improves insulin sensitivity, and increases HDL-cholesterol and antithrombotic activity. However, high alcohol consumption is associated with nutrient-poor diets, making tissues susceptible to carcinogenesis. Heavy alcohol intake is likewise hypothesized to affect folate metabolism and to stimulate sex steroid hormone production, mechanisms that may underlie the development of cancer, particularly breast and colorectal cancers. Alcohol is also thought to produce prostaglandins and free-radical oxygen species, and to cause lipid peroxidation, and its reactive metabolites (for instance acetaldehyde) may be carcinogenic. Additionally, alcohol’s property as a solvent facilitates penetration of carcinogens into cells. Moreover, an unhealthy drinking pattern (binge drinking) increases atherothrombosis, and it has been suggested that this may be more important in causing morbidity than the amount of alcohol intake. Furthermore, tobacco enhances the effects of alcohol – mutations produced by tobacco are poorly repaired in the presence of alcohol (11, 73, 74). Smoking also causes oxidative stress, and induces insulin resistance that partly underlies the development of obesity, hypertension, hyperglycemia, and dyslipidemias (hypertriglyceridemia, elevated LDL-cholesterol, and low HDL-cholesterol), all of which are established risk factors for CVD. Adipocytes, particularly visceral adipocytes, in turn produce free fatty acids (FFA) and pro-inflammatory cytokines that stimulate insulin resistance, inflammation, and oxidative stress. Smoking likewise causes hypertension through the sympathomimetic effects of nicotine. Smoking cessation improves metabolic profile by promoting insulin sensitivity (11, 75). Physical activity favorably alters the metabolic profile by reducing insulin resistance, promoting weight loss, lowering blood pressure and triglycerides, improving glucose homeostasis, and raising HDL-cholesterol (11, 26, 37, 76, 77).

ASSOCIATIONS OF DIET AND LIFESTYLE FACTORS WITH NON-COMMUNICABLE DISEASES

Assessment of diet-disease relationships

Epidemiologic nutrition research has traditionally focused on single nutrients and foods in assessing relationships between diet and health, an approach that has facilitated the understanding of underlying mechanisms. However, this method is inherently confounded by food and nutrient colinearities and interactions, as well as the inability to detect small nutrient effects. The role of specific nutrients – particularly macronutrients – and foods is controversial (11, 52, 78–86). The dietary pattern approach, which considers the total diet and is thus a better indicator of habitual diet, has emerged as an alternative and complementary approach to the conventional single nutrient/food analysis, and is strategic in guiding nutrition policy (31–35, 37, 78, 83, 87).

Dietary patterns and non-communicable diseases

In various populations globally, “Healthy”/“Prudent” and higher quality diet patterns that are characterized by high intakes of whole grains, vegetables, fruits, nuts, fish, poultry, and vegetable oil, as well as moderate alcohol consumption, protect against CVD, diabetes, cancer, and COPD in adults. By contrast, “Unhealthy”/“Western” and lower quality patterns high in refined and processed foods, red meats, trans fat, and SSBs confer higher risk for these outcomes (11, 88–106).

Lifestyle patterns and non-communicable diseases

The clustering of lifestyle factors has generated interest in evaluation of lifestyle patterns, as an extension of the dietary pattern approach, in order to elucidate the associations between behavioral factors and various health outcomes. Several studies in mainly white populations have prospectively examined the combined effect of dietary patterns, alcohol intake, smoking, physical activity, overweight/obesity, and abdominal obesity on health outcomes. Having a low-risk lifestyle – healthy dietary pattern, low to moderate alcohol intake, not currently a smoker, physically active, not overweight or obese (BMI <25 kg/m²), not abdominally obese (waist-to-hip ratio <0.85 [women]) – was associated with a lower risk for CVD, diabetes, and cancer in both women and men (15–23).

NUTRITION GUIDELINES FOR NON-COMMUNICABLE DISEASES

Based on available evidence, the AHA has developed guidelines for CVD prevention and control in women (31). The lifestyle recommendations are equally applicable for other NCDs (30, 32–37) and advocate a healthy eating pattern similar to the Dietary Approaches to Stop Hypertension (DASH) diet (high in vegetables, fruits, whole grains, legumes, nuts, fish and low-fat dairy; low in red meats, processed meats, refined grains, SSBs, sodium; and moderate alcohol.
consumption), avoiding use of and exposure to tobacco products, engaging in regular physical activity (≥ 150 minutes/week moderate intensity, ≥75 minutes/week vigorous intensity, or a combination), maintaining a healthy body weight (BMI < 25 kg/m²), normal WC (<88 cm), normal blood pressure (<120/80 mmHg) and blood glucose (<100 mg/dL or HbA1C <7%), as well as recommended levels of LDL-cholesterol (<100 mg/dL), HDL-cholesterol (>50 g/dL), and triglycerides (<150 mg/dL).

PROGRAMS FOR NON-COMMUNICABLE DISEASES

Priority for NCDs as a health problem has been low generally, particularly for women, in LMICs. Thus, programs addressing these conditions are limited. However, the NCD Alliance, a grouping of four federations (World Heart Federation, International Diabetes Federation, Union for International Cancer Control, and International Union Against Tuberculosis and Lung Disease) that was formed in 2009 has taken the lead in addressing NCDs with a major focus on women, especially in the area of tobacco control (5). The organization has also succeeded in having NCDs incorporated in the post-2015 Millennium Development Goals (107–109). This will facilitate program development for NCD control among women chiefly in LMICs whereby programs can be integrated with those of extant Maternal and Child Health. The Global Alliance for Clean Cookstoves, a public-private partnership that is led by the United Nations, similarly proposes to address HAP by making clean cookstoves available in LMICs (110).

Another initiative called “Go Red for Women” is an international campaign initially created by AHA, and currently operates in ≥40 countries under the auspices of the World Heart Federation, creating awareness and understanding about CVD in women (111, 112). The campaign’s activities – provision of educational material to the public and health professionals, free health checks (screenings for cholesterol, glucose, blood pressure, BMI), health walks, and conferences for health professionals – have been successful in HICs and urban areas of LMICs; in the latter, activities have yet to be extended to rural areas. While there are no specific community-based programs for NCD control among women chiefly in LMICs, comprehensive lifestyle interventions (such as community, school, and workplace health education activities, and mass media campaigns) promoting healthy lifestyles have been successful in improving diet and physical activity, lowering alcohol consumption and smoking prevalence, and improving metabolic risk factors in Iran (113, 114) and Mauritius (115).

CONCLUSIONS

Non-communicable diseases are major clinical and public health problems among women. Preventive intervention strategies need to focus on lifestyle modification. Available evidence, mainly from western societies, supports the protective role of plant-based foods, fish, poultry, and low-fat dairy as well as moderate alcohol for CVD, diabetes, cancer, and possibly COPD. Conversely, westernized dietary patterns high in refined foods, meats, high-fat dairy and SSBs appear to be harmful. A healthy lifestyle protects against CVD, diabetes, and cancer. Findings for associations of dietary and lifestyle patterns with respiratory diseases are inconclusive. Evidence from Iran and Mauritius suggests that community programs can be successful in controlling NCDs in LMICs. More prospective studies in diverse populations would be beneficial.

REFERENCES

Food insecurity is a significant public health concern in the US, particularly for women during the prenatal and postnatal periods (1). Pregnant women who are food secure, by definition, have access at all times to enough food for an active, healthy lifestyle and, by extension, a successful pregnancy. In contrast, food insecure women lack the financial and social resources necessary to meet all of their food needs. These women are further characterized as having either low food security (without hunger) or very low food security (with hunger) (2). These distinctions differ by severity, in terms of the type and frequency of adjustments people in these households make to their eating patterns in response to limited resources. Low food security typically results in reduced quality, variety or desirability of diet, while very low food security disrupts eating patterns and reduces food intake (2). Although these periods of low or very low food security tend to be cyclical, not chronic, nutritional risk due to poor dietary quality can persist, and may increase the risk of nutritional deficiencies and diet-sensitive conditions such as obesity, hypertension and diabetes that can affect short- and long-term health outcomes (3). In addition to physical health, food insecurity is correlated with poor mental health status, which may also lead to negative outcomes in the prenatal and postpartum periods (4, 5). This article will highlight some of the key issues and research in this area, provide recommendations for clinicians working with this population, and direct interested readers toward additional articles to provide further insight on this topic.

Food Insecurity Measures & Prevalence
In the US, food security is most often measured by the 18-item US Household Food Security Scale (2), available at [http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/survey-tools.aspx#household](http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/survey-tools.aspx#household). Households are considered food secure if they agree with fewer than 3 items, food insecure (low food security) if they agree with 3–7 items, and severely food insecure (very low food security) if they agree with greater than 8 items. Recent research suggests that screening with the first two items of the scale is sensitive and specific enough to indicate whether a household is vulnerable to food insecurity (6). These households have been termed “marginally food secure,” and have been found to be more similar in terms of adverse health effects of food insecurity to fully food insecure households than to fully food secure households (7). Recent data released by the US Department of Agriculture on household security in 2011 showed that 14.9% of the US population (17.9 million households) was food insecure during that year (2). Of those, the prevalence rate of households with low food security was 9.2%, and very low food security was 5.7%. Healthy People (HP) 2020 goals include reducing the number of food insecure people to 6.0%, which is a retention of the unmet HP 2010 target (8). Food insecurity is strongly associated with income: 41.1% of households with incomes below the official poverty line ($22,811 for a family of four in 2011) were food insecure, compared with only 7% of those with incomes at or above 185% of the poverty line. Rates of food insecurity were significantly higher than the national average in all households with children (20.6%). The prevalence of women experiencing food insecurity was approximately the same as the national average at 15.0%; however, this varied by race and ethnicity. Asian and Caucasian women were least likely to be food insecure (8.4% and 11.1%, respectively), compared to about one-quarter of Black or Hispanic women. Female-headed households were more likely than male-headed households to experience very low food security (12.9% versus 8.3%, respectively). The households with the highest levels of food insecurity (36.8%), and therefore those to which clinicians must pay the most attention, are those with children that are headed by a single woman (2). Using data from the 2002-2006 population-based postpartum survey, California’s Maternal and Infant Health Assessment (n = 18,332), researchers found that nearly 50% of the pregnant women in their sample were low-income, and 30% of those were food insecure. Using these numbers to estimate national prevalence, researchers concluded that over 800,000 women are likely to experience food insecurity during pregnancy in the US (9).

Food Insecurity, Diet & Maternal Nutrition
Food insecurity is associated with nutritional inadequacy and poor diet quality in women. In a 1997 study by Rose and Oliveira that analyzed 24-hour recall data from 3,744 women, those experiencing food insecurity consumed less than two-thirds of the recommended daily allowance for calcium, iron, vitamin E, magnesium and zinc, and less than half of the recommended caloric intake compared to women from food secure households (10). Healthy pregnancy outcomes are particularly dependent upon optimal intake of certain micronutrients, including folic acid, iron, calcium and vitamin D. This would be a concern when assessing and counseling pregnant women who may be food insecure, and therefore sensitive to the effects of inadequate micronutrient intake (11).

In another study by Kendall and colleagues that looked at the relationship of hunger and food insecurity to food consumption, 24-hour recalls and household food inventories were collected from a sample of 193 women living in rural New York. Researchers found that food insecurity was associated with lower consumption of fruits and vegetables; lower vitamin C, potassium and fiber intakes; less food in the household; and more disordered eating (12). Diet quality scores are also affected by food insecurity status. Researchers using NHANES III data to calculate the Healthy Eating Index (HEI) found that women who were food insecure had lower HEI scores than women who were food secure (13).

Continued on page 10
Women may be more vulnerable to the effects of food security in their role as family caretakers. Olson and colleagues found that women dealing with food insecurity often utilize coping strategies that had negative consequences, such as decreasing the purchase of fruits and vegetables or sacrificing their own nutritional needs to ensure that those of other household members were met (14). Since adequate maternal nutrition during pregnancy is a critical determinant of fetal growth, food insecurity is a threat to adequate fetal growth and development. Fetal growth disturbances due to the poor maternal diet associated with food insecurity can disrupt the metabolic status of the fetus, predisposing the child to obesity and insulin resistance later in life (15).

Food Insecurity & Weight Status
One of the complexities associated with food insecurity is its association with overweight status in women. One of the first large studies to demonstrate this paradoxical finding was a 2001 analysis by Townsend and colleagues of the 1994-1996 Continuing Survey of Food Intakes by Individuals (CSFII) data. In this nationally representative cross-sectional sample, food insecurity was related to overweight status for women (n = 4509, p < 0.0001) but not for men (n = 4970, p = 0.44). The prevalence of overweight among women increased as food insecurity increased, and researchers found that even mildly food insecure women were 30% more likely to be overweight than those who were food secure (16). In a 2007 review of the food security-obesity paradox, Dinour et al. reviewed fourteen studies on food insecurity and obesity published from 1999 to 2006. The articles demonstrated a consistent relationship between food insecurity and obesity among women, but inconsistent results among children and men. Dinour hypothesized about the role that the Food Stamp cycle might play in the link between food insecurity and obesity, since Food Stamp participation was an independent risk factor for overweight in one of the studies reviewed (17).

A recent review of 19 articles published since 2005 confirmed that food insecurity and obesity are strongly and positively associated in women. This newer review also highlighted several mediators of this relationship, including Food Stamp participation that seems to be associated with adverse obesity outcomes (18). Many of the studies finding these associations are cross-sectional and thus have been difficult to interpret, as the causality and directionality of the relationship between food security and weight status is unclear. To better understand the nature of food security and overweight in women, a longitudinal study was designed by Olson and Strawderman. The researchers examined data from a cohort of 622 women in rural New York who had been followed from pregnancy to 2 years postpartum (19). They found that women who were obese early in their pregnancies were more likely to be food insecure at 2 years postpartum, but that the reverse was not true. This finding suggests that obesity leads to food insecurity. Being obese and food insecure also led to the greatest risk of major weight gain in this population. This finding was supported by a 2010 study by Laraia and colleagues, in which a significant relationship between household food insecurity and pre-pregnancy severe obesity was found. After adjusting for covariates, food insecure women were found to be three times more likely to be severely obese before pregnancy than those who were food secure (20).

Food Security & Chronic Disease
Food security has been associated with a number of self-reported chronic diseases including heart disease, diabetes, and hypertension in cross-sectional studies (21, 22). Researchers have also found associations between food security and clinical diagnoses of these chronic conditions among women. In a study conducted by Holben and Pheley, which assessed the relationship of food security to clinically measured chronic disease indicators (BMI, diastolic blood pressure, total cholesterol, random blood glucose, hemoglobin A1c [HbA1c] and hemoglobin) in a convenience sample of 808 rural Ohio residents, BMI and HbA1c levels were significantly higher among food insecure versus food secure women (23). Seligman et al. also found that food insecurity was associated with laboratory or examination evidence of hypertension (ARR 1.21; 95% CI, 1.04-1.41) and diabetes (ARR 1.48; 95% CI, 0.94-2.32) using data from 5094 low-income adults participating in NHANES 1999-2004. The analysis remained significant even after adjusting for BMI status, suggesting that the results could not be fully explained by the increased BMIs of food insecure women (24). Analysis from NHANES data from 1999-2002 found no association between food insecurity and hyperlipidemia in men and inconsistent associations among women. Compared with the fully food secure women, women who were marginally food secure were more likely to have abnormal levels of low-density lipoprotein cholesterol (AOR, 1.85; p = 0.045) and triglyceride/high-density lipoprotein cholesterol ratio (AOR, 1.91; p = 0.046). Women who were food insecure without hunger were more likely to have abnormal levels of triglycerides (AOR, 1.90; p = 0.041), suggesting that low level food insecurity may place women at risk for hyperlipidemia (25).

Among pregnant women, Laraia and colleagues also found that marginally food secure women were at risk for the development of metabolic health conditions. Using data from the Pregnancy, Infection, and Nutrition prospective cohort study, the authors assessed household food insecurity retrospectively among 810 pregnant women and followed them throughout pregnancy (20). They assessed food insecurity for the previous 12 months, indicating that although food insecurity was present before pregnancy, it also continued into the pregnancy. Researchers found that marginally food secure pregnant women were more than twice as likely to experience gestational diabetes mellitus (GDM) than pregnant women from food secure households (AOR 2.76, 95% CI, 1.00-7.66). This association remained significant when marginally-food secure women and food insecure women were compared as a group to fully food secure women. No association was found between food insecurity and anemia or pregnancy-induced hypertension (20).

In a comment on this research by Olson, the author suggests adding a number of variables to future analysis to more fully clarify the relationship between food security and development of GDM in this population. She identified participation in the Women, Infants and Children (WIC) Program, parity and components of food insecurity (such as insufficient intake of food, poor diet quality, lack of choice/sense of deprivation, and disrupted eating patterns) as potential mediators of the relationship (26).
In a recent review paper by Laraiya on food insecurity and chronic disease, the author proposes a model that details conditions under which household food insecurity could lead to the development of chronic disease outcomes. The model is described as follows: 1) household food insecurity is experienced as a chronic stressor (e.g., several months over a year), 2) this promotes a stress response, 3) the stress response results in a preference for and consumption of highly palatable (inexpensive, energy-dense) foods, 4) a stress response brought on by experiencing household food insecurity during critical developmental states (e.g., in utero, infancy, peripubertal, pregnancy) is more damaging, and 5) that this leads to visceral fat accumulation, insulin resistance, or diet-induced obesity that may result in increased risk of chronic disease” (3). Using this model it is clear that the impact of food insecurity during pregnancy and postpartum may be more severe and result in lasting health consequences for mother and child.

Food Security & Mental Health
Research has also shown a correlation between the presence of mental health disorders and food insecurity among women (27, 28). These data are supported in a 2006 study by Laraia and colleagues, using data from 606 pregnant women. The authors found that stress, anxiety and depressive symptoms were positively associated with household food insecurity, while high levels of self-esteem and mastery were negatively associated with food insecurity (4). In a cross-sectional study of 135 low income pregnant Latinas, one-third were found to have elevated levels of prenatal depressive symptoms (EPDS) (≥21 on the Center for Epidemiological Studies Depression Scale). Women who were food insecure were more likely to experience EPDS compared to food secure women (OR 2.59; 95% CI, 1.03-6.52) (5). In an attempt to better understand the life events that impact maternal health, researchers conducted a series of focus groups among 29 Puerto Rican women of reproductive age. The women reported that food insecurity was a powerful stressor: “It's a stress to have to think for tomorrow what you are going to eat when there is nothing in the refrigerator; Well, you have to feed your children first and you’re pregnant and you don’t have nothing else to feed yourself; If you ask for something. ‘Oh, I want a snack for school’ and you don’t have the money to afford, Food Stamps or whatever. It is stressful.” (29). The financial and health consequences of poor maternal mental health are enormous for the family as these families are unlikely to leave food insecurity over time (30).

Author Recommendations Based on Current Research
1. Screen all low-income women that you counsel for marginal food security or more profound food insecurity, which increases risks for chronic health conditions. Female-headed households with children have the highest rates of food insecurity and should be carefully assessed. This can be accomplished by using the first two items of the US Household Food Security Scale to identify those in marginal food-secure households. This will ensure that those in marginally food-secure households are able to receive services and resources they genuinely need (31). The first two scale items are: 1) "(I/we) worried whether (my/our) food would run out before (I/we) got money to buy more;" and 2) "The food that (I/we) bought just didn’t last, and (I/we) didn’t have money to get more." The full scale can assess whether more severe problems exist.

2. The high prevalence of low income and of serious hardships during pregnancy is of major concern. Pregnant and postpartum women should be given special considerations and access to education, nutrition assistance, food preparation assistance, psychological counseling, support groups to build self-esteem, child care assistance, vocational training to build mastery and self-efficacy and workplace re-entry assistance to help address and reduce the short- and long-term consequences of food insecurity. Nutrition education works — Food Stamp Nutrition Education (FSNE) administered to 219 female heads of household was found to be successful in improving participants’ food insecurity status and to reduce food insufficiency (32).

3. Food security of pregnant women can be improved through participation in WIC, the Supplemental Nutrition Assistance Program, the Expanded Food and Nutrition Education Program; and the National School Lunch and Breakfast Programs. Other appropriate community services may include the Commodity Supplemental Food Program, family service centers, teen pregnancy programs, and minority youth programs (11). Access to food during the summer months is also important. The Summer Food Service Program is a valuable resource for families; that offer this service can be located at http://www.whyhunger.org/findfood.

Additional Recommended Reading

References
The House of Delegates (HOD) held its 89th meeting May 4-5, 2013. This marks the fifth year of holding the annual HOD meeting virtually. I greatly appreciated all of the feedback from the WH DPG. The dominant theme for this meeting was “Hunger in America: Food and Nutrition Insecurity Affects All RDs/RDNs and DTRs.”

Saturday’s session focused on the barriers to overcome in order for members of the HOD and of the Academy to reduce food and nutrition insecurity in their communities. Delegates determined how members are uniquely qualified to lead efforts to meet this goal, with discussion focusing on the following two questions:

1. As food and nutrition leaders, what ethical and/or social responsibilities do we have to share knowledge and inspire others to create solutions; and

2. How can delegates inspire or motivate others to take actions toward finding solutions to food and nutrition insecurity?

Day 2 began with a presentation provided by Michelle Marshall, Director of Nutrition at Feeding America. Delegates learned why it’s important for RDs/RDNs and DTRs to understand and address food insecurity; what the Feeding America network is and the important role food banks can play in addressing food insecurity and promoting health; and what opportunities exist for Academy members to get involved in Feeding America.

The morning’s presentation set up the dialogue for the day, which included a discussion on opportunities existing in member communities that may effectively overcome the barriers established on Day 1. Delegates discussed various community resources (organizations and/or individuals) with whom members can potentially collaborate to address food insecurity. The session concluded with determining how members can influence and facilitate sustainable change to minimize or eliminate food and nutrition insecurity.

Based on the dialogue, a series of guiding principles were identified. These principles include, but are not limited to:

• Educate and empower members to become active in addressing this issue in their communities;
• Provide direction for affiliates, DPGs, MIGs and Public Policy Panels;
• Centralize resources for utilization by members;
• Capitalize on opportunities and solutions for individuals throughout the life cycle that exist within the Academy, Foundation and other organizations. In addition, provide opportunities at FNCE, articles in the Food and Nutrition Magazine, and within the Kids Eat Right campaign;
• Provide opportunities to share information within the Academy and with policy makers;
• Position the RD/RDN and DTR as a key partner in the efforts to end hunger.

Since this dialogue, the House of Delegates passed a motion requesting the following activities:

• Development of educational and motivational programs (i.e., webinars, FNCE presentations) for distribution throughout the Academy; and
• Coordination of efforts with other Academy organizational units (i.e., Accreditation Council for Education in Nutrition and Dietetics, Academy Foundation and Legislative and Public Policy Committee).

The HOD also requested the appointment of a Food and Nutrition Security Task Force composed of delegates, DPG members and other Academy organizational units to develop action plans and strategies based on delegate input (prior to, during and following the spring HOD meeting) for each of the following:

• Members – individual members, DPGs, MIGs and affiliates (internal),
• Professional Development (internal),
• Public Policy and Advocacy (internal and external), and
• Partnerships/collaborations (external).

The HOD Leadership Team will monitor the work of the task force, and outcomes of the motion will be shared at the HOD meeting in spring 2014. Reports from the task force will be shared on a regular basis.

All materials related to the spring 2013 HOD meeting, including slides from various Academy-related updates and outcome materials, are located online for members: www.eatright.org/hod > Spring 2013 Meeting > Meeting Materials.

UPDATE ON ACADEMY POSITION

"Consistent access to safe, nutritious and culturally appropriate food and water is a fundamental human right, and is particularly important in helping developing nations to achieve food and nutrition security, according to the Academy of Nutrition and Dietetics in its newly updated position paper, Nutrition Security in Developing Nations: Sustainable Food, Water and Health."

The full position paper can be accessed at http://www.eatright.org/About/Content.aspx?id=8358, or found in the April 2013 issue of the Journal of the Academy of Nutrition and Dietetics, volume 113, issue 4, pp 581-595.

our mission

“Empowering members to be the most valued source of nutrition expertise in women’s health throughout the lifespan.”
A basic definition of food insecurity is: within a household, there is uncertainty of having enough food to meet the needs of all its members because of insufficient money or other resources (1).

Nutrition security is typically defined as “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (2).

**Mega Issue Question:** How can we as Academy members increase our awareness of food and nutrition insecurity and demonstrate our commitment to take action?

**Expected Outcomes:**
Delegates will:
1. Raise Academy members’ awareness of the prevalence and consequences of food and nutrition insecurity for the nation, including current Academy initiatives.
2. Demonstrate commitment and inspire members to take action to improve food and nutrition security at local and state levels.
3. Act to support and promote the Academy’s policy and advocacy programs that improve food and nutrition security at the national level.

The Academy’s Strategic Plan supports the discussion of this mega issue as noted below:
- **Goal #1:** The public trusts and chooses Registered Dietitians as food, nutrition and health experts.
- **Goal #2:** Academy members optimize the health of Americans.
- **Goal #3:** Members and prospective members view the Academy as vital to professional success.

In order for the Academy to achieve its vision “to optimize the nation’s health through food and nutrition” all RDs and DTRs must be aware and support the goals.

**Significant Dates**
To understand how the current food assistance and anti-poverty programs exist in the U.S., a review of the history and development of the programs needs to be understood.

<table>
<thead>
<tr>
<th>Date</th>
<th>History and Development of the Programs</th>
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<tr>
<td>1946</td>
<td>First Government Assistance Programs – National School Lunch Program and later, Food Stamp Program, now SNAP</td>
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<td>1960’s</td>
<td>A start to measure hunger in the US</td>
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<td>1984</td>
<td>The President’s task force on food assistance</td>
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<td>1990</td>
<td>National Nutrition Monitoring and related research act (NNMRR)</td>
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<td>The long-range plan formulated under the Act by the USDA and DHHS clarified the government’s responsibility to help create a sound national measure of food insecurity and hunger. A key requirement was that this measure should be appropriate for standard, consistent use throughout the national nutrition monitoring system and at State and local levels</td>
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<td>2006</td>
<td>Food Security Terminology</td>
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HCD Backgrounder: Hunger in America Food and Nutrition Insecurity Affects all RDs and DTRs Fact Sheet
The Committee on National Statistics (CNSTAT) panel recommended that USDA make a clear and explicit distinction between food insecurity and hunger and consider alternative labels to convey the severity of food insecurity without using the word "hunger." USDA concurred with this recommendation and, accordingly, introduced the new labels "low food security" and "very low food security" to replace "food insecurity without hunger" and "food insecurity with hunger," respectively. USDA is collaborating with partners in the food security measurement community to explore how best to implement other recommendations of the CNSTAT panel (3).

Examples of Involved Members
RDs and DTRs are currently involved in food and water insecurity programs at local, state and federal levels, including:
- administering/referring to food and nutrition assistance programs and emergency food programs,
- serving on task forces, food bank boards, and local policy councils,
- serving as farmers’ market managers or volunteers,
- volunteering at food pantries and soup kitchens, and
- local, state and federal advocacy for food and nutrition policy.

Academy’s Food Security Efforts
Food security efforts through the Academy include advocacy, partnerships, evidence-based research, position papers, and professional development.
- Policy Initiatives and Advocacy, including promotion through the Farm Bill
- Partnerships, including the Future of Food Summit of 2011
- Member Activities including developing corner store initiatives that work with local vendors to increase healthy food offerings
- Evidence-Based Practice through Health Disparities within the Evidence Analysis Library
- Position Papers: there are currently 4 papers published related to this topic, with another 5 papers in development; as well as Journal articles written by members regarding food security
- Professional Development—several FNCE sessions are held annually related to food security, and webinars and reference materials are available for members (and the public)

Academy Strategic Plan and Code of Ethics
The Academy Code of Ethics has several principles that can be applied to the role of the dietetic practitioner and food insecurity. One such principle states “the dietetics practitioner considers the health, safety, and welfare of the public at all times.

Conclusion
The time to act is now. In the presence of the government’s 2015 goals to eliminate child hunger and the Healthy People 2020 initiatives, we must ask, as leaders in food and nutrition what have the Academy and its members done to help make these goals happen? What do we still need to do?

As stated in the Food Insecurity Position Paper, “clearly, RDs and DTRs are uniquely positioned to play key leadership roles and to collaborate with policymakers, government and community leaders, health departments, county extension programs, anti-hunger organizations, and other community-based organizations to eliminate food insecurity in the United States and to establish food secure communities (4).”

References
Gita Patel, MS, RDN, CDE, LD, CLT

Tell us about yourself and how you ended up in the field of dietetics. My mother was the inspiration behind my interest in dietetics. She practiced traditional Ayurvedic, preventative medicine, and as a young girl I noticed that medicine always seemed to come from the kitchen – I wanted to learn more. That concept was also the inspiration behind my book, Blending Science with Spices; 50 Recipes and Nutrition Tips for Healthy Living.

What is your current position? I do private practice consults, and am a Certified Diabetes Educator, an author, and a conference speaker for the American Diabetes Association, the Academy of Nutrition and Dietetics, and many others.

What inspired you to work overseas? I am from India and normally return each winter to visit my mother. While there, I usually take any opportunities to work with patients and speak at conferences. I have spoken at conferences sponsored by UNICEF about topics pertaining to women, infants, and children, and also at meetings focused on diabetes.

How long do you typically spend in India? Can you tell us more about the projects you’ve worked on there, and how they pertain to international issues in women’s health? I usually visit India for 6-8 weeks during the winter, and have done that for the past three years. Because I grew up in the culture, I knew what to expect. Most of my projects were speaking engagements with groups, and one-on-one counseling for women with young children. During some of the speaking engagements for UNICEF, a topic covered is encouragement of Indian women to breast feed and use traditional foods for infants rather than packaged. Baby foods from the United States are heavily marketed to these women and are sometimes seen as “new” or “better,” so focus needs to be placed on using methods that are more natural and traditional.

What were the biggest challenges of living overseas and/or the job? What were the most rewarding aspects? There really were not many challenges since I have family and a home in India, although it is a bit of a limitation that there are fewer places with wireless Internet connections available. To combat that, I made sure to have slides done ahead of time for speaking engagements eliminating the need to rely on the Internet. It is always rewarding when you speak and the audience begins to believe and are willing to make the changes you suggest, whether with diabetes or mothers feeding healthier foods.

What was the biggest eye-opener for you (i.e. what surprised you the most, what did you learn/experience that you didn’t expect)? Iodine deficiency was a big eye-opener for me, as well as the fact that the modern generation in India is more inclined to look at Western ways of eating as more “in style” or “fashionable.” Unfortunately, they sometimes tend to give up traditional foods for Western junk food.

What did you find to be the most important nutrition-related health problem in the population? Did it vary in women, children, and youth? I found that the deficiency seen with iodine is definitely the most important nutrition-related health problem; not a deficiency of iron, protein, or calories as one might expect. The government now iodizes salt; a change that was implemented within the past four years.

How did you function as a nutrition professional in your setting? I was an independent consultant and speaker, so I was not in a clinic setting.

What resources do you suggest for RDs that want to work in the field of international nutrition? This is a tough question to answer because my situation was so convenient, and it is easy to go back and forth between here and there. My situation is a bit unique, so I did not have to use any outside resources.

Do you have any advice for other RDs or RDs-to-be who’d like to get involved in international nutrition? The Indian Dietetic Association is affiliated with the Academy of Nutrition and Dietetics, and there is also an International Dietetic Association. My advice would be to get in touch with them for assistance, resources, and job openings. There are many jobs available in many other countries, depending upon where someone might want to go; however, language might be a barrier since not everyone speaks English. Being bilingual is a plus.

Find more information at Gita’s website: www.feedinghealth.com.

Jean Cox, MS, RD, LN

Tell us about yourself and how you ended up in the field of dietetics. I was raised on a farm in Minnesota. I’ve always liked food, cooking and gardening. My undergraduate degree is from Iowa State University, where I double majored in Food Science and Dietetics. I went to ISU with the idea of test kitchen work, thus the major in Food Science. Our adviser insisted students double-major, and because it was easier to follow her advice than to argue, I chose Dietetics as my second major. I completed my dietetic internship in Beth Israel Hospital in Boston, Massachusetts. At the time I was a long-term substitute for a high school geometry class as I waited to go to Honduras with the Peace Corps. After returning, I went to graduate school in the International Nutrition Program at Cornell University. My Master’s project was completed in New York City with the Expanded Food and Nutrition Education Program, working with people from Puerto Rico and the Dominican Republic. During grad school I also worked in Panama on a research project with other grad students, and spent a few years as the teaching assistant for a course on the Sociocultural Aspects of Nutrition. After grad school I worked for the WIC program in New Jersey, serving both locals and immigrants from a variety of areas. I later moved to New Mexico and worked for WIC with the state and also with local Indian pueblos.

What is your current position? I’m currently employed by the Department of OB/GYN at the University of New Mexico in Albuquerque to provide nutrition counseling for pregnant women in community clinics. We serve many immigrants, primarily from Mexico, as well

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as refugee populations from many parts of the world. When our WIC contract ended, I was freed up to cover the out-patient prenatal clinic at the hospital, including Maternal Fetal Medicine and other high risk patients. Because we are part of the medical school, I periodically have the opportunity to help train medical students, interns, and residents. I also help train WIC nutritionists in our state on nutrition issues, particularly as they relate to the risk factors. Together with the hospital’s medical director, I’ve also written some articles on nutrition and pregnancy geared toward doctors – the satisfying part is that the articles were requested!

What inspired you to work overseas? I wanted to work where nutrition was critical (infant and child mortality there was 50-70%) and where I could make a difference. I had family who worked in India with the Ford Foundation, so the idea of international work was already planted. As far as grad school, they needed help on the project, and since I speak Spanish, I could do that.

Did you select the country and/or population in which you worked? If so, what motivated you to work there in particular? If you were assigned a location, how did you initially feel about the placement? When applying for Peace Corps I selected Latin America because I had a couple years of high school Spanish – not much, but it was something. I selected the job rather than the location, and the location happened to be Honduras in Central America. The job I chose would be to work directly with preschool feeding centers, given that improving child nutrition has long-term benefits. They decided that, given my background, it would be better if I were placed as a regional supervisor of many preschool feeding centers. The actual site in Honduras was determined once training began in-country. The managers got to know us and decided which locations would be the best fit for each of us. My first location was a charming small town in the mountains, and thus it had a cool climate. I was transferred a few months later to a larger town, more centrally located and away from the war in Nicaragua and the refugees in our town. It was very hot and not nearly as charming, but I had a good experience there, staying on extra time to be able to complete more projects.

Describe the project you worked on. How long were you there? What were your long-term benefits. They decided that, given my background, it would be better if I were placed as a regional supervisor of many preschool feeding centers. The actual site in Honduras was determined once training began in-country. The managers got to know us and decided which locations would be the best fit for each of us. My first location was a charming small town in the mountains, and thus it had a cool climate. I was transferred a few months later to a larger town, more centrally located and away from the war in Nicaragua and the refugees in our town. It was very hot and not nearly as charming, but I had a good experience there, staying on extra time to be able to complete more projects.

Describe the project you worked on. How long were you there? What were your expectations going in to the work? How did the actual experience compare? How did your involvement in international issues pertain to women’s health? As the supervisor of rural preschool feeding centers, I provided nutrition education presentations to many groups – parents of the preschool children, the ladies who ran the feeding centers, the social promoters who worked on projects to provide water (any water, but hopefully also clean water) to the communities, CARE (a leading humanitarian organization fighting global poverty) employees, students, teachers, nurses and doctors. I also helped train the incoming volunteers on basic nutrition and food safety for their own health, as well as the incoming nutrition volunteers on childhood malnutrition. Extra projects included consulting at the local hospital, where two patients would share a bed, the kitchen was a small building behind the hospital without electricity and food was cooked in a large pot over an open fire, as well as consulting at the national forestry school where the students living on campus went on strike because of the poor food resulting from multiple management issues. My intern-

ship experience in the hospital food service was well-used!

I stayed 3.5 years in Honduras (normal service is two years) because there were projects I wanted to complete. I went expecting to be able to do more things sooner. That was unreasonable. I wasn’t proficient in the language at first and certainly didn’t know the local situation. It took time to learn what was truly needed and what could actually be done, given the limited resources available. I needed to work within the cultural confines and that also took time. In addition, my co-workers needed to know me and trust me as an individual before I could truly be effective. Just changing things on the whim of the person who flies in and flies out quickly is not the most effective way to get long term positive change and, in fact, it may cause more harm than good, wasting those precious few resources.

My work pertained to women’s health because I was working with preschool children, so of course had some chance to reinforce maternal nutrition and breastfeeding. I needed to work within the cultural confines, but could reinforce to families that, yes, dad of course needed more energy to work in the fields, but that he could get that energy from the rice and beans and tortillas. If there was 1 egg available, it could be better used going to his pregnant wife and/or their small children because it was needed for growth. In addition, while breastfeeding was extremely common in our regions, almost universal, people apologized for not being able to afford formula. Any chance to correct that misconception was taken, especially when the water was known to be contaminated and firewood was hard to find (many of our feeding centers were in a desert) so boiling the water was a real hardship. In addition, we worked on correcting the idea that colostrum was the old dirty milk left over from the last pregnancy, so of course you wouldn’t feed it. Instead you waited patiently for the milk to come in, in the meantime giving the baby instead a small piece of cloth to suck on (“chupón”) that contained, among other things, garlic, camphor and honey, and feeding mom only chicken and toasted tortillas because her system was weak after having just delivered a baby. At the end of my time there, I helped coordinate a meeting that brought all nutrition programs in Honduras together, both the local governmental groups and the NGOs providing outside aid. I know that group continued for at least a few years after I left.

What were the biggest challenges of living overseas and/or the job? What were the most rewarding aspects? It’s difficult to work with the limitations of no electricity, little or no running water, no safe water (unless it is boiled), little money, few trained professionals, etc. It’s also difficult to work in a system where people feel that change is impossible, which unfortunately is often a valid assumption given their experiences. However, knowing that a child will die unless you do your job well makes it worth trying. I remember having a child brought to the feeding center out of which I was based. He had kwashiorkor, complete with the white skin, reddish hair, a swollen belly and limbs. Mom was worried now because the people at the hospital said he would die, so she wouldn’t go back. However, before then she had been happy because he looked fatter than before. It took some courage on her part to feed him the meat and cheese and egg we gave her instead of just the tortilla (what he preferred), watching him lose...
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International Nutrition Interviews

weight” as the edema began to disappear over the next few days and weeks. Luckily he didn’t get an infection while he was coming to us, the main cause of death, and he did recover and survive.

The education and training aspects were also very rewarding. Just a few years ago I received a letter from a co-worker there who discussed what her children thought about specific vegetables and how she was getting them to eat them and choose them. It was wonderful to receive that letter because I had been gone many years!

What was the biggest eye-opener for you (i.e. what surprised you the most, what did you learn/experience that you didn’t expect)? I learned that some of the things I believed and thought were universal beliefs were instead cultural beliefs, and so needed to re-examine many of the things I thought to be true. I also needed to make sure that what I was saying made sense, given the local situation. For example, vitamin A deficiency was very common in the country and children were blinded because of that. It was such a national problem that the refined white sugar was fortified with vitamin A. That, combined with the frank lack of calories, made me need to say that moms should put as much sugar in foods for their kids as they could and that they needed to use the bought white sugar, not the homemade brown sugar. Never in this country have I said that!

One thing I didn’t think enough about ahead of time was the importance of trust from the locals and, therefore, trust in my message. Counteracting the prevailing ideas of what American women are like was critical to allow for trust and, therefore, effectiveness. I lived in a fishbowl 24-7. Growing up in a small town made that easier for me than for those who came from cities, but it was still difficult at times.

What did you find to be the most important nutrition-related health problem in the population? Did it vary in women, children, and youth? The infant/child mortality was greater than 50% and is often in the 70% range. Those that survived were often stunted, with permanent effects on both growth and brain development.

How did you function as a nutrition professional in your setting? I ensured adherence to the national menu, with balanced nutrients, and made sure the feeding centers were using boiled water. We also monitored the growth of the children in the programs, reporting results to the national government and the non-governmental organizations. Sometimes that meant checking the data and correcting errors. One center, for example, had kids who appeared to be getting very tall. It turned out the lady in charge didn’t have a tape measure, so she just added centimeters to each child’s height each time the child was weighed. My main concern was her fear to ask for a tape measure after so many years (we got her one). It was interesting that no one noticed the discrepancy for a very long time. It seems that filling in the boxes was the critical variable, not reading the results.

I taught nutrition, focusing on local problems and local ingredients with a focus on potential solutions. For example, one message was that radishes are healthy to eat, but the radish leaves have even more nutrition, and so I encouraged use of those, too. We boiled and chopped the leaves, and then added them to scrambled eggs. We knew our efforts were effective when the ladies at the market started charging for them instead of giving them away in an attempt to get rid of them.

What resources do you suggest for RDs who want to work in the field of international nutrition? People need to have patience and humility. They need to be able to put aside some of their opinions—members of the Peace Corps are educated not to share personal opinions on local politics, religion, or family planning issues. Depending on the program, they may need to fundraise. They need to be able to speak the language and really listen to the locals, asking how and what these people feel is possible to change. Although, accomplishing everything may not be feasible in the timeframe allotted, so they need to be able to live with some progress, even if it isn’t as much as was hoped. They need to understand the long-term implications of malnutrition, international food aid, etc., but also the importance of cultural beliefs and practices. They need to know about local conditions, including composition of local food products—a much easier task with the Internet. Working internationally often means working in less than ideal situations, which often means an individual must determine what is critical and what is optional. They won’t have the resources or regulations available in the US. On the other hand, people have been surviving for many years without our intervention and often survive better on far fewer resources than we do and probably could, which changes the balance of who is the expert.

Do you have any advice for other RDs or RDs-to-be who’d like to get involved in international nutrition? If they have only 1-2 weeks, unless they are going for a specific, defined project, they should expect that experience to be more for their benefit than for the benefit of the local people. Real change takes time and trust, and can’t be developed if someone just jumps in and out.

If you would like to contact Jean for more information about her travels or current work, please feel free to email her at: jcox@salud.unm.edu.

Membership Update

Free Webinars

The WH DPG recently concluded its 2013 webinar series. This series of free webinars for members provides a low-cost, convenient way to share knowledge and information. The webinar topics for this year were: mindful eating, interstitial cystitis, nutrition and fertility and prenatal nutrition. The live webinars are 1 hour in length and offer 1 CPEU. The archived recordings are available in the member section of the Web site. We have already started to plan the 2013-2014 webinar series. If you have ideas for webinar topics or are interested in being a presenter, please email whdpgmembership@gmail.com.
The profession of dietetics and nutrition is always evolving. As trusted practitioners in this field, we are expected to keep informed, and therefore need a lot of tools at our fingertips. A recent addition to my “toolbox” is the Nutrition Coordinating Committee (NCC) website.

The NCC is a joint project of the Division of Nutrition Research of the National Institutes of Health (NIH), with the cooperation of individuals from other NIH Institutes and Centers, Department of Health and Human Services agencies, the US Department of Agriculture and the Department of Defense. Every month, the NCC meets for dialogue on recent and upcoming nutrition studies, current policy initiatives, scientific seminar reviews, and opportunities for training and research funding. Detailed meeting minutes are shared on the website, accessible at no charge. Names and contact information for members can also be found on the website.

The committee also maintains two specialty groups comprised of members from a handful of the various NIH Institutes, Centers, and Offices: the Nutrition Education Subcommittee (NES) and the Probiotic and Prebiotic Working Group (PPWG). The NES ensures accuracy and consistency of the nutrition education made publicly available by federal departments and agencies. Web links to approved nutrition education materials are posted on the NIH Division of Nutrition Research Coordination site (http://dnrc.nih.gov). The PPWG identifies gaps and challenges in prebiotic and probiotic research, and promotes collaborative works that increase knowledge of the relationship between gut microbes and human health. In addition to sharing evidence-based safety reviews and meeting minutes, symposia and research conferences are available to download from the PPWG page.

I believe this to be a valuable source of timely and accurate updates with regard to nutrition education and dietary guidance matters. The full disclosure of contact information for the members of the NCC and its subgroups may also prove beneficial for networking and general communication purposes. I encourage all of you to visit the NCC website for more information: http://dnrc.nih.gov/committee.asp.

**RESOURCE REVIEW: Nutrition Coordinating Committee** By Heather A. Goesch, MPH, RDN, LDN

**WH DPG NEWS BRIEFS**

**WH EC Member Appointed to Distinguished Post**

Congratulations to our Chair, Barbara Millen, DPH, RD, FADA on her recent appointment as Chair of the 2015 Dietary Guidelines Advisory Committee (DGAC). On May 31, 2013 US Department of Health and Human Services Secretary Kathleen Sebelius and US Department of Agriculture Secretary Tom Vilsack announced the appointment of 15 nationally recognized experts to serve on the DGAC. The Committee’s recommendations and rationale will serve as a basis for the eighth edition of the Dietary Guidelines for Americans. Follow the committee’s progress at http://www.dietaryguidelines.gov.

**DPG Award News**

Congratulations to Angela Grassi, MS, RD, LDN on receiving the WH Award for Excellence in Practice and Carrie Dennett on her WH Award for Outstanding Student!

Stay tuned for information about the 2013-2014 awards. We’re excited to announce that the call for nominations will include our new WH Award for Emerging Professional in Women’s Health.

**From the Evidence Analysis Library**

Educators – these resources are for you! Did you know that the Academy’s Evidence Analysis Library (EAL) has tools to help you build your curriculum? Educator Modules are complete packages that guide students on how to analyze research and use pertinent topics such as diabetes, celiac disease and disorders of lipid metabolism. Educators are supplied with student assignments, case studies, questions for exams or classroom discussion, and temporary student access to the EAL. Assignments come in graduate or advanced levels. To purchase the educator modules go to the EAL Store at https://andevidencelibrary.com/store.cfm?category=6.

**Got Case Studies?**

The *Women’s Health Report* is looking for contributing authors to share case studies for our future publications. Please contact Editor Heather Goesch at whdpgppublications@gmail.com if you’d like to contribute.
The 2013 Academy of Nutrition and Dietetics Public Policy Workshop (PPW) was held in Washington, D.C., March 10-12, 2013. Denise Andersen represented the Women's Health DPG on the Academy's House of Delegates, and I attended the PPW as the DPG Legislative Coordinator.

The Academy President, Ethan Bergman, PhD, RD, CD, FADA, kicked off the PPW with a powerful statement: “If dietetics is your profession, then policy should be your passion!” Dr. Bergman reminded attendees that advocacy starts with every member.

PPW attendees were briefed on complex issues affecting dietetics, the future health of vulnerable populations, and the surrounding political environment. Nutrition policy experts covered important topics such as the budget, sequestration, the Older Americans Act (OAA) and the Farm Bill. Not only do these issues impact RDs/RDNs and DTRs working in programs such as Supplemental Nutrition Assistance Program – Education (SNAP-Ed) and Agencies on Aging, they also impact the individuals and families participating in these programs, ultimately increasing their risk of developing chronic disease.

Robert Blancato, President of Matz, Blancato & Associates in Washington, D.C., updated members on the OAA, which aims to keep older adults independent at home and in their communities. Nutrition programs such as Meals on Wheels and congregate dining are a major part of the OAA; they are critical to the well-being of the aging population. Blancato informed members that OAA saves millions in Medicaid and Medicare dollars. The Academy is advocating that the bill's language ensure that qualified nutrition professionals, including registered dietitians, are included at local, regional, state and federal levels of the aging network so that cost-effective nutrition services and evidence-based programs result. The Academy would also like to see language included that assures all participants receive targeted nutrition screening, assessment, counseling and education.

The Academy’s Legislative Public Policy Committee Chair, Karen K. Ehrens, RD, LRD, moderated a session on the Farm Bill with a particular focus on SNAP-Ed. SNAP and SNAP-Ed are susceptible to significant cuts. The Academy supports the SNAP-Ed Program for SNAP participants and asks that cuts to SNAP-Ed be reconsidered, as the program empowers participants to make healthy food choices and provides guidance on how to prepare healthy meals on limited food budgets with the aim of preventing obesity and chronic disease.

PPW concluded with Academy members visiting their Congressional Representatives and Senators on Capitol Hill.

**My Perspective as a PPW Rookie**

The Conference in Washington was, to say the least, awe-inspiring. For me, as a naturalized citizen, it was a different experience to see buildings and monuments in person rather than in pictures or on TV. The conference venue displayed many anecdotes about political meetings and ceremonies that had taken place there throughout our political history, which lent an air of anticipation for what I was about to experience. At first I felt like a fish out of water, but my Public Policy partners and officers from my Nebraska affiliate were very helpful. Likewise, the customized agenda set by the Public Policy Committee helped with easing into those sessions for which I needed groundwork and context for the larger issues.

Many of the sessions were informative, some were politically charged with ideological leanings, but all were educational. In addressing Academy-specific issues with our representatives, I surprised myself with my own level of knowledge on the issues and was immediately designated to speak on behalf of the group during our visit to Capitol Hill. It was a bit intimidating, until my first discussion with incoming freshman Senator Deb Fischer, when it hit me that our elected officials are not omniscient on issues such as public policy on food and nutrition; I am the expert. Once the conversations began (and they all seemed to have started with the then-pending Farm Bill Appropriations, the sequester and budget concerns), I found my flow. I already knew how the process worked legislatively; the “political” side of it was something I learned from the representatives. The consensus was that while no one wants to hurt or deprive those in need, there are political differences regarding how it was all going to be paid for now and in the future.

I found out just how much impact an informed advocate can have, because I chose to address the issues of Older American’s and Women’s and children’s nutrition and health issues from a different perspective than I guess was expected. I chose to address the Academy’s major issues from the perspective of outcomes and cost-benefit. Every single Congressional representative I talked to for my state wanted to hear what I had to say in this regard and it changed the conversation from “I know what the Academy wants…” to “how can you achieve these outcomes in a cost effective manner?” I shared several of my ideas with Senator Mike Johanns and Representative Lee Terry, and was completely surprised when they asked for a short written briefing on what we discussed. I found that public policy representatives who consistently visited their representative on the Hill each year, and actively connected with them back in their home states, are the ones that get their representative’s ear. It is all about being consistent, concise and visible.

At the end of the conference – with its wonderful food, heightened political conversations, and breathtaking visit to the Capitol – the one word summation of my experience was “exhilarating”. I am truly grateful to the WH DPG Executive Committee and the Academy Public Policy Committee for facilitating my attendance. I hope to attend again in the future.
From time to time the myth surfaces that the Academy of Nutrition and Dietetics’ Political Action Committee (ANDPAC) supports only one particular political party. This rumor is typically followed by questions about how funds for candidates are approved. Well, I am here to give you the inside scoop!

As with any Political Action Committee, the ANDPAC has processes and criteria to use when deciding which elected officials or candidate receives funds. ANDPAC contributes to elected officials and candidates “across” party lines. We are about policies not politics!

**Criteria:** There are many considerations taken into account when considering whether or not to support a candidate. The criteria used to determine who receives ANDPAC funds include the following:

- The candidate’s past or present support for the Academy’s public policy priorities;
- The perceived need for the candidate’s support in the future;
- The candidate’s leadership position or committee assignment;
- The nature of the event associated with the contribution, if applicable; and
- The need for “face time” with the candidate or elected official.

What you will notice from this list is that the ANDPAC Board of Directors does not include a member’s party affiliation, ideological stance or extent to which he or she leans “left” or “right.” In fact, the primary goal is to support candidates in federal offices who can advance the Academy’s legislative and public policy priorities and further our mission of optimizing the nation’s health through food and nutrition. Having said that, ANDPAC actively seeks to contribute proportionately to candidates in both major parties.

In addition, the ANDPAC takes into account a candidate’s leadership position and committee assignment. In the halls of the Capitol in Washington D.C., most of the “nitty-gritty” work of crafting new laws is not done on the floor of the House or Senate, but at the committee level. No important bill is considered without first winning approval from at least one committee. ANDPAC carefully reviews the committees to determine its impact on the mission and vision of the Academy.

Lastly, the ANDPAC Board is notified in advance of any fundraisers that Academy staff or members will attend in conjunction with a contribution. Upon notification, the Board is provided with the criteria used to recommend the contribution as well as the cost of the event and the funding history of that particular candidate.

**Process:** The ANDPAC Board of Directors discusses the criteria and then takes a vote to approve or not approve the funding being considered. A record of the voting is then kept on file for public record.

Decisions are made with assistance from the Academy’s Policy Initiatives and Advocacy (PIA) staff that serves as resources to facilitate and advance ANDPAC’s program of work and the Board’s deliberations. PIA staff gathers and synthesizes information, tracks contributions, manages the budget, records member donations and ensures compliance with federal reporting requirements.

The overall goal of ANDPAC is to influence nutrition policy, not political parties. ANDPAC is a “multicandidate committee political organization” under federal law. Its purpose is to solicit and receive contributions to be used to make political campaign expenditures to election campaigns of candidates for political offices and other political committees who have demonstrated an understanding and interest in the views and goals of the Academy of Nutrition and Dietetics.

If you have any questions, additional references are located on the ANDPAC website. Also, you can check out www.opensecrets.org, which provides very specific information on contributions, candidates and PACs.

**Brenda Richardson, MA, RD, LD, CD**
2013 Chair, ANDPAC Board of Directors

Find out more about how you can attend a local fundraiser for your representative: [http://www.eatright.org/ANDPAC/content.aspx?id=7640](http://www.eatright.org/ANDPAC/content.aspx?id=7640)
New Name, New Benefit

In addition to expanding your professional network, you can now earn FREE CPE by participating in the new eMentoring program.

The Academy’s new name underscores the educational values our organization is committed to, and now we’re proving it.

CPE is available for both mentees and mentors!

Academy eMentoring—where experience and enthusiasm merge.

Take advantage of this benefit by visiting the Mentoring Resources page at www.eatright.org