HEALTHCARE NUTRITION COUNCIL

Improving outcomes through awareness and action

Submitted Via Regulations.gov

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Center for Nutrition Policy and Promotion
Food and Nutrition Service
U.S. Department of Agriculture
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

RE: Docket Number FNS-2019-0001 titled "Announcement of First Meeting of the 2020 Dietary Guidelines Advisory Committee and Request for Comments"

Dear Members of the Dietary Guidelines Advisory Committee,

The Healthcare Nutrition Council (HNC) is responding to the notice published March 12, 2019 in the *Federal Register* by the U.S. Department of Agriculture (USDA), Food, Nutrition and Consumer Services (FNCS); and Department of Health and Human Services (HHS) entitled "Announcement of First Meeting of the 2020 Dietary Guidelines Advisory Committee and Request for Comments." HNC is an association representing manufacturers[1] of enteral nutrition (EN) formulas and oral nutrition supplements (ONS), parenteral nutritional (PN) formulas, supplies and equipment. HNC members are committed to improving health by advancing policies that address and raise awareness of nutrition and its impact on health outcomes and costs. This includes promoting nutritional screenings, diagnoses, assessments and appropriate and timely nutrition interventions while protecting patients' access to enteral and parenteral nutrition products and services throughout the continuum of care. Following are comments from HNC regarding the 2020 Dietary Guidelines for Americans (DGA).

HNC provided the enclosed comments to USDA and HHS indicating our support of the agencies' approach to differentiate between life stages in the DGA and that older adults, ages 65 and older, remain a separate life stage as identified. Dietary recommendations tailored to meet the nutritional needs of older adults are vital to help address the impacts of age, chronic disease, and malnutrition. The growing population of older adults has specific and different needs than younger age groups. Therefore, we encourage USDA and HHS to keep this age group separate and develop specific dietary recommendations for the older adult population.

As the Dietary Guidelines Advisory Committee (DGAC) determines nutrition recommendations for older adults in the DGA, we would like to highlight considerations that should be made for the prevention of malnutrition and preservation of lean body mass and muscle strength. We recognize the DGA are focused on healthy Americans, yet with up to one in two older adults at risk for malnutrition,[2,3] this is an important nutrition-related public health concern - one that should be addressed in the DGA.

[1] HNC members are Abbott Nutrition, B. Braun Medical Inc., Nestle Healthcare Nutrition, and Nutricia North America.
[2] The Malnutrition Quality Collaborative. National Blueprint: Achieving Quality Malnutrition Care for Older Adults. Washington, DC: Avalere and Defeat Malnutrition Today. March 2017.
[3] Kaiser, MJ; Bauer, JM; Ramsch, C; Ulter, W; Guigoz, Y; Cederholm, T; Thomas, DR; Anthony, PS; Charlton, KE; Maggio, M; Tsai, AC; Vellas, B; and Sieber, CC. Frequency of malnutrition in older adults: a multinational perspective using the mini nutritional assessment. *Journal of the American Geriatrics Society.* 2010; 58(9): 1734-1738.

HNC and nutrition experts define malnutrition as follows:[4,5]

> *Malnutrition is an acute, subacute or chronic state of nutrition, in which varying degrees of over nutrition or undernutrition with or without inflammatory activity have led to a change in body composition and diminished function due to alterations in substrate availability. Malnutrition has also been defined as a state of nutrition in which a deficiency, excess, or imbalance of energy, protein, and other nutrients cause measurable adverse effects on body function and clinical outcomes. There are three common types of malnutrition diagnoses for children and adults in clinical practice settings: (1) starvation-related malnutrition; (2) chronic disease-related malnutrition; and (3) acute disease or injury-related malnutrition.*

Malnutrition is a critical, complex problem affecting individuals in all settings of care. Older adults are disproportionately affected by malnutrition, which is present in 30-50% of hospitalized patients aged 65 years and older; additionally, more than a third of community dwelling older adults are at risk for malnutrition or are malnourished.[6,7] Individuals' overall health and outcomes are affected by nutrition care management. Malnourished individuals experience increased morbidity, complications and mortality, longer hospitalizations, more readmissions, and institutionalizations and need for ongoing services. These complications may result in increased healthcare costs as well as increased risks for functional disability, frailty, and falling. Healthcare providers and the public are typically unaware of malnutrition's prevalence in the older adult population. Malnutrition care represents an important gap area that has been acknowledged by the Centers for Medicare & Medicaid Services (CMS).[8] It has also been specifically included by the World Health Organization (WHO) in its evidence profiles and recommendations for the WHO Integrated Care for Older People (ICOPE) Guidelines on community-level interventions to manage declines in intrinsic capacity.[9]

We commend the DGAC for including sarcopenia in its topics and questions for systematic review. Sarcopenia is related to malnutrition, and while common among institutionalized older adults, it is also an emerging concern among the free-living population.[10] The prevalence of sarcopenia in intensive care unit (ICU) patients is documented at 56-71%.[11] Regardless of hospitalization, it is estimated that 5-13% of adults over age 60 years and approximately 50% of adults over 80 years have sarcopenia.[12]

Adequate nutrition, and specifically adequate protein intake, can help attenuate the declines in muscle mass and function associated with sarcopenia. Importantly, current evidence indicates older adults may need higher protein intakes to support healthy musculoskeletal aging. Studies have shown that the

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[4] Mueller, C; Compher, C; Druyan, ME; and the ASPEN Board of Directors. Clinical Guidelines: Nutrition Screening, Assessment, and Intervention in Adults. *JPEN.* 2011; 35:16-24.
[5] White, JV; Guenter, P; Jensen, G; Malone, A; Schofield, A; Academy Malnutrition Work Group; ASPEN Malnutrition Task Force and the ASPEN Board of Directors. Consensus Statement: Academy of Nutrition and Dietetics and American Society for Parenteral and Enteral Nutrition: Characteristics Recommended for the Identification and Documentation of Adult Malnutrition (Undernutrition). *JPEN.* 2012; 36:275-283.
[6] Silver, Heidi; Kelsey Jones Pratt, Michelle Bruno, Joe Lynch, Kristi Mitchell, and Sharon McCauley. Effectiveness of the malnutrition quality improvement initiative on practitioner malnutrition knowledge and screening, diagnosis, and timeliness of malnutrition-related care provided to older adults admitted to a tertiary care facility: a pilot study. *Journal of the Academy of Nutrition and Dietetics*. 2017; 118(1): 101-109.
[7] Kaiser, MJ; Bauer, JM; Ramsch, C; Ulter, W; Guigoz, Y; Cederholm, T; Thomas, DR; Anthony, PS; Charlton, KE; Maggio, M; Tsai, AC; Vellas, B; and Sieber, CC. Frequency of malnutrition in older adults: a multinational perspective using the mini nutritional assessment. *Journal of the American Geriatrics Society.* 2010; 58(9): 1734-1738.
[8] The Malnutrition Quality Collaborative. National Blueprint: Achieving Quality Malnutrition Care for Older Adults. Washington, DC: Avalere and Defeat Malnutrition Today. March 2017.
[9] World Health Organization. Integrated care for older people (ICOPE) Guidelines on community level interventions to manage declines in intrinsic capacity. Evidence profile: malnutrition. 2017. Retrieved from https://www.who.int/ageing/health-systems/icope/evidence-centre/ICOPE-evidence-profile-malnutrition.pdf?ua=1.
[10] Goates, Scott; Kristy Du, Carol Braunschweig, and Mary Beth Arensberg. Economic Burden of Disease-Associated malnutrition at the State Level. *PLOS ONE*. 2016; 11(9): 1-15.
[11] *Ibid.*
[12] Traylor, Daniel; Stefan Gorissen, and Stuart Phillips. Perspective: Protein Requirements and Optimal Intakes in Aging: Are We Ready to Recommend More Than the Recommended Daily Allowance? *Adv Nutr.* 2018; 9:171-182.

postprandial increase in muscle protein synthesis is lower in older adults compared to younger adults.[13] This reduced sensitivity to protein may be due to a variety of age-related factors such as impaired protein digestion and amino acid absorption, increased splanchnic extraction, impaired muscle perfusion, or impaired anabolic signaling.[14] This blunted response has been termed age-related anabolic resistance, and evidence shows it can be overcome by increasing the amount of dietary protein consumed.[15] Furthermore, studies in community-dwelling U.S. older adults have found that higher protein intakes (1.0 g/kg body weight/day or higher) are associated with reduced risk of mobility limitations and functional decline and are protective against loss of grip strength over time.[16,17,18] Based on the evidence, multiple international expert groups recommend increased protein intake for older adults, with a minimum of 1.0 to 1.2 g/kg/d for healthy older adults and even higher levels (1.2-1.5 g/kg/d) for those who are malnourished or at risk of malnutrition due to acute or chronic illness.[19,20]

Adequate nutrition and protein intake is achievable for most people. Some people, however, use oral nutritional supplements (ONS) to help meet their recommended needs. Studies have shown the use of ONS can be used to treat and prevent malnutrition for those in the hospital as well as those living in the community. The use of ONS with caregiver education reduced 30-day readmission rates and length of stay in hospitals among older adults with malnutrition by 2 days on average.[21] The NOURISH study found malnourished patients randomized to receive high-protein ONS for 90 days post-discharge had improved nutritional status and decreased mortality compared to those in the placebo group.[22,23] Other studies have found use of ONS in hospitalized patients reduced 30-day readmission rates, reduced length of stay, reduced incidences of pressure ulcers, reduced risk of complications from chronic disease, decreased length of antibiotic therapy, and ultimately reduced health care costs.[24,25,26] ONS have also been shown to

[13] Wall, BT; Gorissen, SH; Pennings, B; Koopman, R; Groen, BB; Verdijk, LB; and van Loon, LJ. Aging is accompanied by a blunted muscle protein synthetic response to protein ingestion. *PLOS ONE*. 2015; 10(11): e0140903.
[14] Traylor, Daniel; Stefan Gorissen, and Stuart Phillips. Perspective: Protein Requirements and Optimal Intakes in Aging: Are We Ready to Recommend More Than the Recommended Daily Allowance? *Adv Nutr.* 2018; 9:171-182.
[15] Moore, DR; Churchward-Venne, TA; Witard, O; Breen, L; Burd, NA; Tipton, KD; and Phillips, SM. Protein ingestion to stimulate myofibrillar protein synthesis requires greater relative protein intakes in healthy older versus younger men. *J Gerontol A Biol Sci Med Sci.* 2015; 70(1): 57-62.
[16] McLean, RR; Mangano, KM; Hannan, MT; Kiel, DP; and Sahni, S. Dietary Protein Intake Is Protective Against Loss of Grip Strength Among Older Adults in the Framingham Offspring Cohort. *J Gerontol A Biol Sci Med Sci.* 2016; 71(3): 356–361.
[17] Houston, DK; Tooze, JA; Garcia, K; Visser, M; Rubin, S; Harris, TB; Newman, AB; and Kritchevsky, SB. Protein Intake and Mobility Limitation in Community-Dwelling Older Adults: the Health ABC Study. *J Am Geriatr Soc*. 2017; 65(8): 1705–1711.
[18] Mustafa, J; Curtis Ellison, R; Singer, MR; Loring Bradlee, M; Kalesan, B; Holick, MF; and Moore, LL. Dietary Protein and Preservation of Physical Functioning Among Middle-Aged and Older Adults in the Framingham Offspring Study. *Am J Epidemiol*. 2018; 187(7):1411–1419.
[19] Bauer, J; Biolo, G; Cederholm, T; Cesari, M; Cruz-Jentoft, AJ; Morley, JE; Phillips, S; Sieber, C; Stehle, P; Teta, D; Visvanathan, R; Volpi, E; and Boirie, Y. Evidence-Based Recommendations for Optimal Dietary Protein Intake in Older People: A Position Paper From the PROT-AGE Study Group. *J Am Med Dir Assoc*. 2013; 14:543-559.
[20] Deutz, NE; Bauer, JM; Barazzoni, R; Biolo, G; Boirie, Y; Bosy-Westphal, A; Cederholm, T; Cruz-Jentoft, A; Krznariç, Z; Nair, KS; Singer, P; Teta, D; Tipton, K; and Calder, PC. Protein intake and exercise for optimal muscle function with aging: Recommendations from the ESPEN Expert Group. *Clin Nutr*. 2014; 33(6):929-936.
[21] Silver, Heidi; Kelsey Jones Pratt, Michelle Bruno, Joe Lynch, Kristi Mitchell, and Sharon McCauley. Effectiveness of the malnutrition quality improvement initiative on practitioner malnutrition knowledge and screening, diagnosis, and timeliness of malnutrition-related care provided to older adults admitted to a tertiary care facility: a pilot study. *Journal of the Academy of Nutrition and Dietetics*. 2017; 118(1): 101-109.
[22] Goates, Scott; Kristy Du, Carol Braunschweig, and Mary Beth Arensberg. Economic Burden of Disease-Associated malnutrition at the State Level. *PLOS ONE*. 2016; 11(9): 1-15.
[23] Deutz, NE; Matheson, EM; Matarese, LE; Luo, M; Baggs, GE; Nelson, JL; Hegazi, RA; Tappenden, KA; and Ziegler, TR. Readmission and mortality in malnourished, older, hospitalized adults treated with a specialized oral nutritional supplement: A randomized clinical trial. *Clin Nutr.* 2016; 35(1): 18-26.
[24] Goates, Scott; Kristy Du, Carol Braunschweig, and Mary Beth Arensberg. Economic Burden of Disease-Associated malnutrition at the State Level. *PLOS ONE*. 2016; 11(9): 1-15.
[25] Philipson, TJ; Snider, JT; Lakdawalla, DN; Stryckman, B; and Goldman, DP. Impact of oral nutritional supplementation on hospital outcomes. *Am J Manag Care.* 2013; 19(2): 121-128.
[26] Mullin, GE; Fan, L; Sulo, S; and Partridge, J. The Association between Oral Nutritional Supplements and 30-Day Hospital Readmissions of Malnourished Patients at a U.S. Academic Medical Center. *Journal of the Academy of Nutrition and Dietetics.* 2019; 119(7): 1168-1175.

reduce hospitalization and medical care costs in non-hospital and community settings.[27,28] The use of ONS as part of a nutrition-focused quality improvement program in home health agencies for patients with (or at risk of) malnutrition led to significant reductions in the relative risk of hospitalization (by 12-24%) and cost savings of $1,500 per patient treated.[29] Additionally the WHO recognizes malnutrition as a major problem affecting older adults, and has published a strong recommendation that ONS with dietary advice should be recommended to older people affected by undernutrition.[30]

In summary, HNC encourages the DGAC to consider the unique nutritional needs of older adults when providing recommendations for the DGA. Older adults are at greater risk of developing malnutrition, especially those with chronic disease(s). We therefore ask the DGAC to consider:

1) Developing specific dietary guidelines, including optimization of protein intake for older adults to support their unique nutritional needs, and
2) The role of ONS to complement a diet in order to help individuals meet their nutritional (protein) requirements.

Thank you for the opportunity to provide comment. Please let me know if you have any questions.

Sincerely,

Robert Rankin

Robert Rankin
Executive Director

Enclosure: HNC Comments on DGA Topics (Final 03.30.18)

[27] Elia, M; Normand, C; Laviano, A; and Norman, K. A systematic review of the cost and cost effectiveness of using standard oral nutritional supplements in community and care home settings. *Clin Nutr.* 2016; 35:125-137.
[28] Arnaud-Battandier, F; Malvy, D; Jeandel, C; Schmitt, C; Aussage, P; Beaufrere, B; and Cynober, L. Use of oral supplements in malnourished elderly patients living in the community: a pharmaco-economic study. *Clin Nutr.* 2004; 23:1096-1103.
[29] Riley, K; Sulo, S; Dabbous, F; Partridge, J; Kozmic, S; Landow, W; VanDerBosch, G; Falson, MK; and Sriram, K. Reducing Hospitalizations and Costs: A Home Health Nutrition-Focused Quality Improvement Program. *JPEN*. 2019; 0(0): 1-11.
[30] World Health Organization. Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: World Health Organization; 2017. License: CC BY-NC-SA 3.0 IGO. Retrieved from https://www.who.int/ageing/publications/guidelines-icope/en/.