



# HEALTHCARE NUTRITION COUNCIL

Improving outcomes through awareness and action

Submitted via [Regulations.gov](https://www.regulations.gov)

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Office of the Assistant Secretary for Health  
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RE: Comment from the Healthcare Nutrition Council, Docket Number HHS-OASH-2022-0021-0001, 2025 Dietary Guidelines Advisory Committee

Dear Members of the Dietary Guidelines Advisory Committee,

The Healthcare Nutrition Council (HNC) is responding to the notice published January 19, 2023 in the *Federal Register* by the U.S. Department of Agriculture (USDA) and Department of Health and Human Services (HHS) entitled “2025 Dietary Guidelines Advisory Committee” (DGAC or Committee). HNC is an association representing manufacturers<sup>1</sup> of enteral nutrition (EN) formulas and oral nutrition supplements (ONS), including those categorized as medical foods, and parenteral nutritional (PN). Our mission is to improve patient outcomes by advancing nutrition policies and actions that raise awareness and optimize access to essential nutrition support therapies across the continuum of care. Following are comments from HNC regarding the 2025 Dietary Guidelines for Americans (DGA or Guidelines).

For the Committee’s consideration, we are concerned about the prevalence of malnutrition, especially among older adults and certain ethnic and racial groups, which in some cases was exacerbated during the COVID pandemic. The Centers for Disease Control and Prevention (CDC) reported that, tragically, the national deaths related to malnutrition have doubled from 9,300 deaths in 2018 to 20,500 deaths in 2022.<sup>2</sup> As the DGAC determines nutrition recommendations 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,<sup>3,4</sup> this is an important nutrition-related public health concern - one that

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<sup>1</sup> HNC members are Abbott Nutrition, Nestle Healthcare Nutrition, and Nutricia North America.

<sup>2</sup> Kaiser Health News. U.S. Malnutrition Deaths Have More Than Doubled. *U.S. News and World Report*. April 13, 2023. Retrieved from: <https://www.usnews.com/news/health-news/articles/2023-04-13/deaths-from-malnutrition-have-more-than-doubled-in-the-us#:~:text=By%20Phillip%20Reese%20%7C%20KFF%20Health%20News&text=The%20same%20trend%20occurred%20nationwide,for%20Disease%20Control%20and%20Prevention.>

<sup>3</sup> Kaiser Health News. U.S. Malnutrition Deaths Have More Than Doubled. *U.S. News and World Report*. April 13, 2023. Retrieved from: <https://www.usnews.com/news/health-news/articles/2023-04-13/deaths-from-malnutrition-have-more-than-doubled-in-the-us#:~:text=By%20Phillip%20Reese%20%7C%20KFF%20Health%20News&text=The%20same%20trend%20occurred%20nationwide,for%20Disease%20Control%20and%20Prevention.>

<sup>4</sup> 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.

should be addressed in the DGA. The 2020 DGA included mention of older adult malnutrition and we request that DGAC expand on the issue further in the 2025-2030 DGA.

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.<sup>5,6</sup>

Individuals' overall health and outcomes are affected by nutrition care management. Malnourished individuals experience increased morbidity, complications and mortality, longer hospitalizations, and 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. Malnutrition costs associated with older adults aged 65 years and older who are the most at risk for malnutrition, and largely dependent on Medicare, are estimated at \$51.3 billion annually.<sup>7</sup> However, this figure likely underestimates the total burden of disease-related malnutrition given the diagnosis gap in hospitalized patients.<sup>8</sup>

Overall healthcare expenditure for disease-associated malnutrition across eight major diseases was found to be \$156.7 billion per year according to findings from the National Health Interview Survey, the National Health and Nutrition Examination Survey, and CDC.<sup>9</sup> In addition, malnourished patients and patients with nutrition-related or metabolic issues are frequently readmitted to the hospital.<sup>10</sup> Further, the average costs per readmission for patients with malnutrition were found to be 26-34 percent higher (\$16,900 to \$17,900) compared to those without malnutrition (\$13,400).<sup>11</sup> 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).<sup>12</sup> 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.<sup>13</sup>

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<sup>5</sup> 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.

<sup>6</sup> 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.

<sup>7</sup> Snider J, et al: Economic burden of community-based disease-associated malnutrition in the United States. *JPEN J Parenteral Enteral Nutr*. 2014;38:55-165.

<sup>8</sup> Snider JT, Linthicum MT, Wu Y, et al. Economic burden of community-based disease-associated malnutrition in the United States. *JPEN J Parenter Enteral Nutr*. 2014; 38 (Suppl 2): 77S-85S.

<sup>9</sup> Snider, Julia; Linthicum, Mark; Wu, Yanyu; LaVallee, Chris; Lakdawalla, Darius; Hegazi, Rifaat; and Matarese, Laura. (2014). Economic Burden of Community-Based Disease-Associated Malnutrition in the United States. *JPEN*. 38. 10.1177/0148607114550000.

<sup>10</sup> Braunschweig C, Gomez S, Sheean PM. Impact of declines in nutritional status on outcomes in adult patients hospitalized for more than 7 days. *J Am Diet Assoc*. 2000;100:1316-1322.

<sup>11</sup> Fingar K, Weiss A, Barrett M, Elixhauser A, Steiner C, Guenter P, and Hise Brown M. All-Cause Readmissions Following Hospital Stays for Patients with Malnutrition, 2013. *HCUP Statistical Brief #218*. 2018. 1-18.

<sup>12</sup> The Malnutrition Quality Collaborative. National Blueprint: Achieving Quality Malnutrition Care for Older Adults. Washington, DC: Avalere and Defeat Malnutrition Today. March 2017.

<sup>13</sup> 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>.

We commend the DGAC for including sarcopenia in its original topics and questions for systematic review but were disappointed to see it removed as a priority due to limited evidence. Sarcopenia is related to malnutrition, and while common among institutionalized older adults, it is also an emerging concern among the free-living population.<sup>14</sup> The prevalence of sarcopenia in intensive care unit (ICU) patients is documented at 56-71%.<sup>15</sup> 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.<sup>16</sup> We ask the Committee to reconsider prioritization of addressing sarcopenia in these Guidelines. There was very little mention of sarcopenia in the 2020-2025 DGA.<sup>17</sup> Even without a systematic review, the Committee should make a strong statement to acknowledge concerns about sarcopenia in the DGA and how it can be treated and prevented.

Sufficient 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 postprandial increase in muscle protein synthesis is lower in older adults compared to younger adults.<sup>18</sup> 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.<sup>19</sup> 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.<sup>20</sup> 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.<sup>21,22,23</sup> 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

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<sup>14</sup> 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.

<sup>15</sup> *Ibid*.

<sup>16</sup> 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.

<sup>17</sup> Page 123. See "sarcopenia." Dietary Guidelines for Americans, 2020-2025. Chapter 6: Older Adults. Retrieved from: [https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary\\_Guidelines\\_for\\_Americans-2020-2025.pdf](https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf).

<sup>18</sup> 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.

<sup>19</sup> 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.

<sup>20</sup> 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.

<sup>21</sup> 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.

<sup>22</sup> 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.

<sup>23</sup> 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.

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.<sup>24,25</sup>

Nutritional status and malnutrition are often influenced by a variety of social determinants of health (SDH) which are “the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies, and political systems.”<sup>26</sup> In many cases, SDHs will have a drastic impact on the availability and quality of foods, how those foods can be prepared and consumed, and what foods will be commonly consumed as staple parts of the diet. As a result, SDHs shape a population’s nutritional status and may result in certain populations, such as the elderly, disabled, and the poorest segments of society, becoming malnourished. The USDA found that Black non-Hispanic households were over 2 times more likely to be food insecure than the national average (21.7% versus 10.5%, respectively), and the prevalence of food insecurity among Hispanic households was 17.2% compared with the national average of 10.5%.<sup>27</sup> Furthermore, data from the Malnutrition Quality Improvement Initiative (MQii) Learning Collaborative in 2019 indicate non-Hispanic Black individuals with malnutrition have more than a 26% readmission rate compared with less than 19% among non-Hispanic White individuals.<sup>28</sup> We appreciate that the Committee is addressing health equity in this iteration of the Guidelines and we ask that malnutrition risk for these populations be under serious consideration in making recommendations.

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.<sup>29</sup> 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.<sup>30,31</sup> Other studies have found use of ONS in hospitalized patients reduced 30-day readmission rates, reduced length of stay, reduced

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<sup>24</sup> 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.

<sup>25</sup> Deutz, NE; Bauer, JM; Barazzoni, R; Biolo, G; Boirie, Y; Bosty-Westphal, A; Cederholm, T; Cruz-Jentoft, A; Krznarić, 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.

<sup>26</sup> World Health Organization. Social Determinants of Health. 2019. Retrieved from [http://www.who.int/social\\_determinants/en/](http://www.who.int/social_determinants/en/)

<sup>27</sup> U.S. Department of Agriculture, Economic Research Service. (n.d.). Key statistics & graphics. Retrieved March 10, 2022, from <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx>

<sup>28</sup> Leveraging Inpatient Malnutrition Care to Address Health Disparities. Avalere Health; 2022. Accessed June 16, 2022. <https://avalere.com/insights/leveraging-inpatientmalnutrition-care-to-address-health-disparities>.

<sup>29</sup> 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.

<sup>30</sup> 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.

<sup>31</sup> 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.



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incidences of pressure ulcers, reduced risk of complications from chronic disease, decreased length of antibiotic therapy, and ultimately reduced health care costs.<sup>32,33,34</sup> ONS have also been shown to reduce hospitalization and medical care costs in non-hospital and community settings.<sup>35,36</sup> 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.<sup>37</sup> 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.<sup>38</sup>

As the Committee is assessing recommendations for ultra-processed foods, we ask for ONS to be excluded from this review since they are a specialized nutrition category and are used differently than conventional foods. These products, like other medical foods, are specially formulated and processed to uniquely address patient and consumer needs.

We appreciate that the 2020 Guidelines recognized the role of supplementation when discussed with a healthcare provider. We ask the Committee to continue this recommendation in these Guidelines and to specifically recognize how ONS can be used to complement a diet to help individuals who are unable to meet their nutritional needs through regular foods alone.

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

Sincerely,

A handwritten signature in black ink that reads "Robert Rankin". The signature is written in a cursive style with a large, prominent "R" at the beginning.

Robert Rankin  
Executive Director

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<sup>32</sup> 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.

<sup>33</sup> 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.

<sup>34</sup> 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.

<sup>35</sup> 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.

<sup>36</sup> 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.

<sup>37</sup> 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.

<sup>38</sup> 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/>.