SCIENTIFIC BASIS FOR DIETARY GUIDANCE

ARS will conduct research to

1) improve the scientific basis for updating national dietary standards and guidelines,

2) identify roles of food, food components and physical activity in promoting health and preventing disease, and

3) integrate multiple data sources to inform requirements of subpopulations (precision nutrition). Research will focus on nutrient requirements, the basis for inter-individual variation in requirements, nutrient needs of underserved and disadvantaged populations, biomarkers of nutrient intake and nutritional status, dietary modulation of the microbiome and its impact on health, and mechanisms by which food and physical activity alter function and promote health. Science will be translated through clinical trials with research populations of different age ranges, geographical locations, and demographics. Machine learning/artificial intelligence approaches will be utilized as appropriate.

The Defeat Malnutrition Today Coalition of >120 organizations/stakeholders working to defeat older adult malnutrition appreciates the opportunity to provide comments on setting research priorities for the USDA human nutrition program over the next 5 years.

We strongly support including a specific focus on older adult nutrition in ARS research to improve the scientific basis for upcoming national dietary standards/guidelines. With the number of adults aged 65+ expected to reach 74 million in the U.S. by 2030, there is an urgency to secure the future of "healthy aging," starting with good nutrition. In a GAO report entitled *Nutrition Assistance Programs: Agencies Could Do More to Help Address the Nutritional Needs of Older Adults*, GAO reported "As older adults age, they may also face barriers, such as a reduced appetite, impairing their ability to meet their nutritional needs" and recommended developing "a plan to focus on older adults' needs in a future update to the (2025- 2030) guidelines."

Health disparities exist, especially for our nation's minority older adult population, and poor diet and lack of access to healthy foods have been key contributors to those disparities. Dietary Guidelines for Americans, informed by ARS research on older adult nutrition, can help shape federal nutrition assistance programs to better serve the diverse population of older adults, including those that rely program such as the Supplemental Nutrition Assistance Program, Senior Farmers Market Nutrition Program, and the Child and Adult Care Food Program.

For ARS research focused on nutrition requirements, nutrition status, and nutrient needs of underserved/disadvantaged populations, we urge the Agency to consider how these research priorities intersect with the issue of older adult malnutrition. Up to half of all older adults are at risk of malnutrition. Our *National Blueprint: Achieving Quality Malnutrition Care for Older Adults, 2020 Update*, identified high-quality nutrition and malnutrition care for older adults should be at the "top of the U.S. national agenda as we develop population health strategies to improve health and to deliver consistent quality healthcare at an affordable cost." This is because malnutrition has been shown to be associated with poor health outcomes, frailty and disability, and increased healthcare costs.

A major risk factor for malnutrition is food insecurity. A recent national roundtable, *Advancing Health Equity Through Malnutrition Quality Measurement*, commented that "Improving screening for and identification of malnourished patients in the acute care setting should be

followed by developing appropriate interventions to address both malnutrition and food insecurity in culturally appropriate ways beyond the hospital and these should be coordinated effectively. Such strategies can serve to avoid preventable complications, reduce overall costs, and address health equity."

According to the World Health Organization, older persons are particularly vulnerable to malnutrition. Yet currently, malnutrition in older adults is not identified or addressed through any existing evidence-based federal guidance in the U.S. ARS research that helps quantify the nutrition needs and nutrition status of older adults, particularly risk for malnutrition and including that linked to food insecurity, is critical to help best target community-based nutrition programs and services for older Americans most in need.

LIFE STAGE NUTRITION AND METABOLISM

ARS will conduct research to

1) identify dietary and related lifestyle factors for healthy development and function from conception to old age, and

2) identify determinants and consequences of nutritional status, diet, and body composition on metabolic programming.

The six ARS Human Nutrition Research Centers have different focus areas that cover the age range from infants and children, adolescents, adults, through the aging population. In addition, the different locations of the Human Nutrition Research Centers facilitate focus on different segments of the population with differing demographics and access to food.

The Defeat Malnutrition Today Coalition of >120 organizations/stakeholders working to defeat older adult malnutrition appreciates the opportunity to provide comments on setting research priorities for the USDA human nutrition program over the next 5 years.

As ARS conducts research specific to life stage and metabolism, we urge the Agency to consider interrelated conditions that occur frequently in older age and impact muscle mass and functionality. Specifically, one in two older adults are at risk of or have malnutrition and poor nutritional status in older adults is associated with the onset of frailty and sarcopenia. Importantly, malnutrition is a problem for both underweight and overweight/obese older adults because of the loss of lean body mass.

Malnutrition affects 20-50% of admitted hospital patients. In acute care settings, malnutrition is linked to increased rates of mortality, increased infection rates, delayed wound healing, longer length of hospital stay, higher readmission rates, and higher treatment costs. However less is known about the incidence, prevalence, and health impacts of malnutrition for older adults in post-acute care and in the community. ARS research could help provide insights into malnutrition risk and impact on older Americans in these settings. Further, such research could help identify the dietary and related lifestyle factors that are important to help reduce risk for malnutrition and that could be incorporated into community-based nutrition programs and services to better support healthy aging.