

Concept Clearance - Food is Medicine Networks or Centers of Excellence

Introduction

This is a revised proposed concept originally presented at the September 2022 Council of Councils meeting. Reviewers commented that the proposed interventional studies and research is what NIH does really well, that the deliverables made a lot of sense, and that the phased competition will allow the research community both the time and experience to really advance the Food is Medicine Networks or Centers of Excellence. Other cited strengths were the recognition of the socioeconomic forces that impact treatment and health beyond nutrition, addressing the lifestyle aspect in a way that can help facilitate care delivery, and the inclusion of microlevel systems to connect with community stakeholders.

Our responses to the questions or comments (in italics) are below, followed by the revised proposal.

Lack of clarity on what would happen in the community with existing health networks and encouraging applicants to use community engagement strategies. As indicated in the revised concept, some services take place within the health system whereas others take place in the community, frequently with community partners (e.g., churches, food banks, etc.). Applicants will use their phase 1 planning grants to develop Community Outreach and Engagement (COE) plans. Phase 2 proposals will describe their Catchment Area (CA, i.e., similar to [NCI centers'](#) catchment areas and not just an existing patient population) and a COE plan. The CA population demographics, including special populations, should be described in terms of the burden of Diet-Related Chronic Disease (DRCDC), food insecurity, nutrition disparities and other social determinants of health (SDOH). The COE plan should describe: (a) how the research will address CA needs; (b) how the team will engage or partner with entities already filling the gaps in hunger/food insecurity, SDOH and health space; (c) how they will engage their populations to more closely reflect the distribution of CA diversity in research studies; (d) how to involve the community in setting a research agenda; and (e) how the research and COE could led to policy change at all levels in order to extend the impact.

Lack of articulation about what would occur in health care systems, clinics, and hospitals where so many individuals receive their care and, to some degree, their health education. A noticeable change could be: (a) increased interactions with health professionals with nutrition expertise and social workers (i.e., given that a number of the activities will take place in the community); (b) food insecurity assessments and [nutrition-focused physical exams](#) at points of contact with patients and community events; and (c) increased utilization of Food is Medicine or other clinical nutrition interventions where indicated.

Grants supporting training and education are not outlined in the concept, so more specificity is needed about how training will be expanded. An expectation from these Centers in Phase 2 will be provision of enhanced nutrition education in curricula of health professions programs along with increased training of health care staff related to nutrition, food insecurity, DRCDCs, SDOH and diversity, equity, inclusion, and accessibility. Other options may include culinary medicine, teaching kitchen programs, new fellowship programs and research training opportunities coming from proposed research projects.

Some agencies currently engaged in community efforts related to nutrition and food security are not involved in the concept, and there was a comment about the need to engage macrolevel strategies to support these activities from multiple perspectives. Unlocking the potential of Food is Medicine and "[bringing nutrition out of the health care shadows](#)" will require a whole of society response. Applicants' COE plans should address proposed engagements with relevant agencies and non-government organizations (NGOs), and as mentioned above, how their activities are anticipated to have wider impact. NIH and ONR have been engaging with other federal agencies and NGOs to explore co-funding or coordinating opportunities through direct consultations, the [Interagency Committee on Human Nutrition Research](#), and the White House (WH) led Nutrition Interagency Policy Council (IPC). Food is Medicine was highlighted in Pillar 2 of the [White House \(WH\) Conference on Hunger, Nutrition and Health](#) and in the [Call to Action](#) of the National Strategy. Examples of agency activities that dovetail with this initiative include: NIH's trans-agency Food is Medicine request for information, HHS Health Resources and Services Administration's Maternal and Child Health Nutrition Program to train 30,000 nutrition professionals over the next five years on key

topics such as pediatric obesity prevention, household food security, and nutrition during pregnancy, the [Veterans' Administration](#) planning Medically Tailored Meals (MTMs) pilots at VA centers; committing to train thousands of practicing health professionals in nutrition through their Maternal and Child Health Nutrition Training program; [CDC's support](#) of population-level healthy food policies and programs; [USDA's efforts](#) to achieve nutrition security and health equity; and [NIH's research opportunities on nutrition security and hunger research](#). The Centers for Medicare and Medicaid Services (CMS), has been reimbursing for Food is Medicine services in Medicare Advantage since 2020, and CMS is now piloting Medicaid prescriptions for MTM along with other interventions for housing security and other social determinants of health through waiver programs in several states. Other commitments have come from the private sector including: the [AGCME](#), [AAMC](#), and [AACOM](#) are planning a first-ever Medical Education Summit on Nutrition in Practice in 2023 to address increasing nutrition education; and insurers investing in Food is Medicine services (e.g., [Blue Cross/Blue Shield](#), [Kaiser Permanente](#), [Spectrum Health](#), and [Texas health plans](#)). ONR is engaging and coordinating with some of these organizations.

Revised Concept Proposal

Background

A [report from the ASPEN Institute](#) and other [analyses](#) have provided evidence that Food is Medicine approaches are associated with meaningful improvements in food security, health biomarkers (e.g., BMI, [cardiometabolic parameters](#), HbA1C), insurance costs, and health quality indicators (e.g., [hospital readmissions for the same diagnosis](#)). Food is Medicine is an umbrella term for programs that respond to the critical link between diet and health involving a nexus to the health care system and the provision of different services including: (1) MTMs; (2) medically tailored food packages or groceries; (3) nutritious food referrals; (4) prescriptions for nutritious groceries or produce; and (5) [Culinary Medicine](#) or [Teaching Kitchens](#). In recognition of the opportunities in this area, the Rockefeller Foundation and American Heart Association released a [joint statement](#): *"To unlock the potential of Food Is Medicine — and make it a regular and reimbursable component of Americans' health care — we must build on this existing scientific evidence. New research can help inform the development of more impactful health care policy that improves individual health markers, lowers insurance costs, and is feasible in practice."* To this end, ONR proposes comprehensive networks or centers of excellence that will conduct Food is Medicine research, provide DRCD care, expand nutrition training and education, and implement COE strategies to reduce the burden of DRCDs and nutrition disparities in their catchment area.

Program Goal

This is a two-phase program with the first phase focused on planning/pilot grants. During the planning phase awardees will be building infrastructure, developing and testing new programs, curricula and Food is Medicine patient services, designing and seeking IRB approvals for planned research studies (including vanguard studies), describing their CA and identifying and engaging community partners. The second phase being full implementation of Networks or Centers of Excellence providing Food is Medicine research, education, patient care, and COE to decrease the rate of DRCD in the respective catchment areas. Examples of [research](#) include interventional, behavioral, implementation science, health quality, economic, and pragmatic studies. Successful applicants are expected to conduct transformative research that provides health care quality and medical economics evidence for improvements to the health care system including practices, reimbursement policies, and community wellness. Applicants will propose a Pilot and Feasibility and Enrichment Programs. In regard to the [education component](#), second phase applications should describe how they will increase nutrition education (i.e., clinical nutrition, obesity, lifestyle and culinary medicine along with SDOH that confound DRCD prevention and treatment) for their existing staff and health professional degree programs. New clinical residency, fellowship and certificate programs in nutrition may be proposed. Other training opportunities are expected to arise from the proposed research. Finally, community or patient educational and communication strategies should be outlined along with analyses of their impact. The [COE plan](#) should aim to improve nutrition, increase physical activity, and reduce obesity, disease-related and other forms of malnutrition, food insecurity, and DRCDs in their catchment area using locally appropriate and culturally sensitive Food is Medicine or other approaches.

Initiatives

Plans are for Other Transactions (OT) awards for a phased competition. Phase 1 (planning) includes up to ten Food is Medicine pilot programs. Successful pilot programs could be considered for a second competition that would support up to eight Phase 2. Applications must include a letter from institutional leadership outlining commitments and external COE plans to address the ambitious goals and assure the success of these initiatives. Programmatically, we will evaluate applications to evaluate opportunities to increase geographic diversity, low resourced regions or regions of the country where populations are disproportionately affected by obesity, malnutrition, food insecurity and/or chronic conditions that would benefit from Food is Medicine services.

Deliverables

Deliverables may include: (1) research leading to reductions in hunger, food insecurity, obesity and DRCDs in their catchment area, including a pilot and feasibility program; (2) common evaluation metrics capable of measuring the outcomes of Food is Medicine interventions on different health conditions; (3) evidence-based diagnostics and treatments for malnutrition in clinical settings to improve health care quality, treatment outcomes and wellness; (4) profiles of the different types of people who would benefit from specific types of interventions, and in what ways, and under which circumstances; (5) evidence-based metrics for informing appropriate changes to policies and procedures for uptake by the health care industry, insurers, and policymakers; and (6) annual ONR convened meetings with Phase 2 grantees to discuss lessons learned and to showcase innovations and share regionally appropriate and culturally sensitive Food is Medicine best practices.

Budget

Phased competition for award of up to ten pilot/planning programs supported for up to three years, and a competitive second phase for up to eight 5-year NIH-designated Food is Medicine Networks or Centers of Excellence for a total of \$140 M.

Initiatives	FY 2023	FY2024	FY 2025	FY 2026	FY2027	Total
Food is Medicine Networks or Centers of Excellence, Phase 1 Planning/Pilot Awards		\$20M	\$20M			
Food is Medicine Networks or Centers of Excellence, Phase 2 Awards				\$40M	\$40M	\$120M