



National Institutes of Health
Office of Nutrition Research

Food as Medicine Networks or Centers of Excellence

Christopher J. Lynch, Ph.D.
Acting Director, ONR, DPCPSI

Concept Clearance: NEW

Title: Food as Medicine Networks or Centers of Excellence (Other Transaction Authority)

Objective/Purpose: *Interventional, implementation, behavioral science, and health quality research aimed at reducing the burden of diet-related diseases and nutrition disparities using Food as Medicine and other approaches. The utilization of health centers or networks as the nexus of activity and agents of change in their communities, and within their own health system.*

Funds Available and Anticipated Number of Awards: Contingent upon NIH appropriations of \$20 million/year and submissions of highly meritorious applications.

Award Project Period: Phased award competition. Phase 1 planning/pilot: up to 10 awards for 3 years; leading to competition for Phase 2 study: up to 5 awards for 5 years.

Council Action: Vote for approval of the concept for Food as Medicine Networks or Centers of Excellence



National Institutes of Health
Office of Nutrition Research

We are faced with numerous nutrition, health, and social problems that fall within the research mission of ONR

- Obesity and Diet-Related Chronic Disease (DRCD) Rates and Costs
- Nutrition Disparities and other Social Determinants of Health (SDOH)
- Hunger and Food Insecurity
- Malnutrition in Clinical Settings
- Training in and Reimbursement for team-based Lifestyle Medicine, Nutrition, Behavioral Counseling, and Bariatric Medicine and Dietetics



Problem: Increasing Rates of Obesity and DRCD

- Obesity and other DRCDs are among the most prevalent chronic diseases costing trillions of dollars each year in direct health care spending and lost economic productivity
- Rates and costs are rising, owing to many factors (e.g., weight stereotypes, food environment, Social Determinants of Health, availability of expertise in weight management, reimbursement issues, etc.)
- Research suggests that over 96% of the population with obesity had an unmet need for care



Problem: Nutrition Disparities and SDOH

- Various community and environmental factors confound treatment outcomes (e.g., food and housing insecurity, violence, and other social and health disparities)
- Risks for obesity and related comorbidities are higher based on adverse social circumstances, which are part of a problem of systemic structural dynamics that curtail opportunities for advancement
- Fragmentation of the authorities who are charged with addressing these issues makes it difficult, if not impossible, to address them



Problem: Hunger and Food Insecurity

- Levels of hunger have been rising in the U.S., worsened by a weak supply chain, and climate change that restricts access to nutritious food to underserved populations
- In 2020, 13.8 million U.S. households experienced food insecurity
- Food insecurity is inextricably linked to poverty and is far higher in households of minority populations and those with children. It has health, behavioral, and social consequences including reduced therapeutic adherence, cognition, access to self-care resources, and is linked to poor mental health



Problem Malnutrition in Clinical Settings

- Disease related and other forms of malnutrition remain a serious issue affecting more than 30% of hospitalized patients
- Malnutrition is associated with high mortality and morbidity, functional decline, prolonged hospital stays, and increased health care costs
- Post discharge malnourished patients are more frequently re-admitted to hospitals
- In 2016, a taskforce known as the Global Leadership Institute on Malnutrition developed a universal framework for assessing malnutrition; however, such screenings for malnutrition or hidden hunger are not routinely performed



Problem: Training in and Reimbursement for team-based ABOM, Lifestyle Medicine, Nutrition, Behavioral Counseling, and Therapeutics

- Some physicians are not adequately trained to talk about nutrition, perform motivation interviewing for behavioral interventions, and that there are not enough American Board of Obesity Medicine ([ABOM](#)) or [Lifestyle](#) medicine trained physicians
- Inadequate reimbursement for and time to properly manage the treatment of obesity and DRCs are also issues
- Many insurance companies refuse to cover effective weight loss therapies (e.g., incretin mimetics) when doctors deem medically necessary



Background - What is “Food as Medicine?”

[Food as Medicine](#) is an umbrella term for programs that respond to the critical link between diet and health involving:

- (1) the provision of healthy food** (e.g., medically tailored meals, grocery or produce prescriptions, or vouchers), and;
 - (2) a nexus to the health care system** (often deploying clinical nutrition and lifestyle medicine approaches to their patient communities).
- Recognizes healthcare providers as a trusted source of information
 - Few people report receiving dietary guidance from their health care provider, *but 78% of those that do initiate dietary change*



Opportunity

- Food as Medicine Programs help address hunger, food insecurity, and healthy eating
- If Networks or Centers of Excellence become the nexus for that activity, why not ***be the nexus*** for addressing the internal and community social barriers preventing us from moving the needle on obesity, DRCs, and disease-related malnutrition
- Networks or Centers of Excellence could develop innovative and testable local solutions to these problems:
 - Conduct transformative implementation science, efficacy, and health quality research that provides the value and medical economics evidence for improvements in health system practices, reimbursement policies, and community wellness
 - Increase dietetics and connections with university's nutrition science departments, which are not normally located in an academic health center



Examples of Medical Systems Opportunities

- Increasing undergraduate, medical school, residency, and fellowship training in nutrition, lifestyle and bariatric medicine, health equity and weight bias
- Systematic screening for malnutrition and food insecurity at patient touch points and as part of community outreach
- Perform health quality research, where the research provides reimbursement on approaches to reduce food insecurity, clinical malnutrition, hunger, and obesity and improvements to DRCD care
- Increasing the number of staff dietitians and medical social workers
- Culinary medicine programs for trainees and community



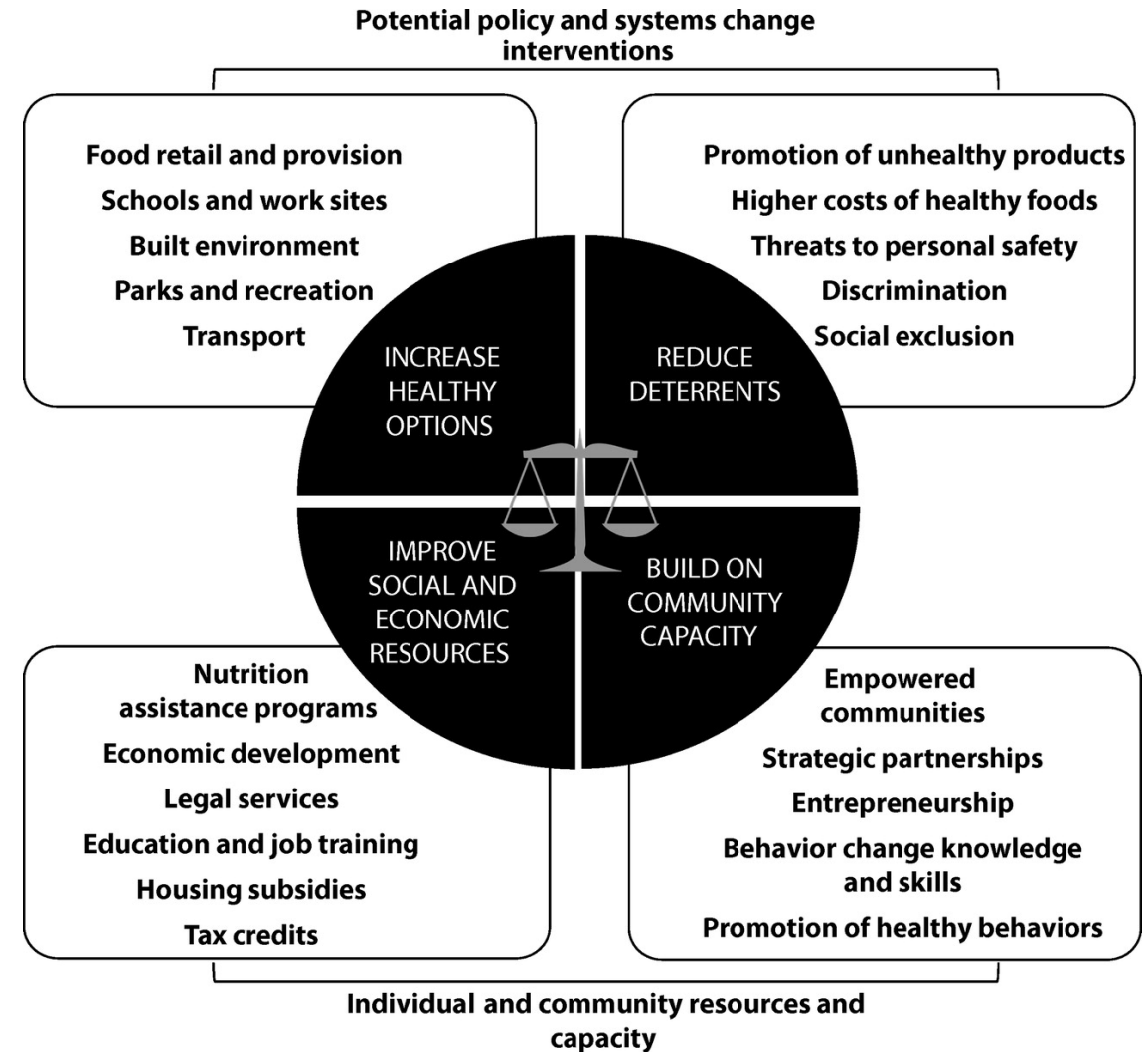
Opportunities in Communities

- We recognized that Health Systems have staff dedicated to health of their community, along with facilities and expertise in health care, fund raising, and education
- Health Networks or Centers could become the facilitator of better coordination between, food banks, other not-for-profit organizations, schools, religious groups, police, local government, regional cooperative extensions, local federal services (HRSA, ACL, SNAP, WIC, etc.), and businesses to better coordinate improving situations of violence, housing and food security, food environment, hunger, access to healthy food, skills for preparing healthy food, and wellness
- A vision is for the health system as an agent of change in their community through expansion, defragmentation, coordination, and facilitation of ongoing efforts to reduce community barriers and factors leading to hunger, food and housing insecurity, malnutrition, and obesity and other DRCD



A framework for potential policy and systems change interventions

CREDIT: Shiriki K. Kumanyika, "A Framework for Increasing Equity Impact in Obesity Prevention", American Journal of Public Health 109, no. 10 (October 1, 2019): pp. 1350-1357. <https://doi.org/10.2105/AJPH.2019.305221>





National Institutes of Health
Office of Nutrition Research

Food as Medicine Networks or Centers of Excellence

Program deliverables

- Common evaluation metrics that can effectively measure the effect of *Food as Medicine* interventions on different health conditions
- Evidence-based diagnostic instruments and treatments for malnutrition in clinical settings to improve health care quality, treatment outcomes, and wellness
- Profile of people who will benefit from the different types of Food as Medicine interventions, in what ways, and under what circumstances
- Amassing a large evidence base on relevant statistics to motivate policy change and uptake of the studied interventions by the health care industry, insurers, and policymakers
- Annual lesson's learned meetings of investigators organized by ONR to showcase innovation within health systems and in communities along with regionally appropriate and culturally sensitive *Food as Medicine* best practices



National Institutes of Health
Office of Nutrition Research

Thank you!
Questions?





National Institutes of Health
Office of Nutrition Research

Council Action: Vote for approval of the concept for
Food as Medicine Networks or Centers of Excellence