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Commentary

The ethics of food-as-medicine in chronic disease prevention: Evidence, equity, and public health communication

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Highlights/Key Messages

- Food-as-medicine requires evidence-calibrated communication.
- Nutrition advice should account for food access and culture.
- Food should support, not replace, standard medical care.
- Ethical safeguards can reduce misinformation and patient blame.

ABSTRACT

This commentary argues that food-as-medicine communication in chronic disease prevention should be evidence-calibrated, equity-centered, culturally responsive, and clinically responsible. The article focuses on how clinicians, public health organizations, and nutrition communicators can discuss food, dietary patterns, food access, and disease prevention without overstating certainty or implying that diet replaces medical care. The commentary synthesizes selected peer-reviewed literature, national and international nutrition guidance, and public health ethics principles into a practical communication framework. The synthesis distinguishes mechanistic, observational, randomized, implementation, and guideline-level evidence, and combines these evidence categories with ethical considerations related to autonomy, nonmaleficence, justice, culture, and social determinants of health. The central argument is that food-as-medicine can support chronic disease prevention only when public messages clearly separate evidence-based assertions from opinion, acknowledge uncertainty, address food access barriers, avoid disease-cure claims, and encourage clinician oversight for high-risk patients. The article proposes practical safeguards for ethical communication, including evidence-proportionate wording, plain-language uncertainty statements, separation of dietary-pattern guidance from supplement or wellness-product claims, attention to affordability and cultural relevance, and explicit integration with standard medical care.

Introduction

Food-as-medicine has gained increasing attention as a strategy for preventing and managing chronic diseases. The term is often used to describe such different things as nutrition counseling, medically tailored meals, produce prescription programs, community food partnerships, and public health education that connects food access with health outcomes. These approaches are appealing because diet quality is associated with major chronic diseases and cardiometabolic risk factors, including hypertension, cardiovascular disease, type 2 diabetes, obesity, and some cancer risks (Global Burden of Disease 2017 Diet Collaborators, 2019; U.S. Department of Agriculture and U.S. Department of Health and Human Services, 2020).

The promise of food-as-medicine is, in theory, practical and public health-oriented. It can shift prevention from abstract advice to concrete support, especially when nutrition counseling is paired with food access programs. Medically tailored meals and fresh produce prescription programs illustrate this shift because they connect dietary advice to material resources rather than placing the full burden of behavior change on patients (Berkowitz et al., 2019; Hager et al., 2022).

Keywords: food as medicine; public health nutrition; chronic disease prevention; nutrition ethics; health equity

At the same time, using the language of food-as-medicine creates ethical responsibilities. Nutrition messages are often simplified for patients, media audiences, and community programs. Simplification is necessary, but it can become misleading when evidence is overstated, uncertainty is hidden, or diet is presented as a substitute for needed medical care. Ethical communication must therefore be used in ways that protect both public health goals and patient trust.

Purpose and scope

This commentary has one central purpose: to propose an ethical communication framework for food-as-medicine messages in chronic disease prevention. It is not a systematic review or rapid review. Rather, it is an evidence-informed commentary that uses selected literature and public health ethics principles to support a practical argument: food-as-medicine messages should be accurate about evidence strength, explicit about uncertainty, attentive to food access and culture, and integrated with standard medical care. Supplements and wellness products are discussed only as communication risks when they are blurred with evidence-based dietary guidance.

Commentary approach

The author has synthesized evidence and opinion by grouping relevant sources into five categories: public health burden and dietary guidance; food-as-medicine intervention literature; evidence-quality distinctions in nutrition science; social determinants of nutrition; and ethical communication principles. Factual claims are supported by citations. Commentary positions are presented as normative recommendations derived from this evidence base and from ethical principles such as autonomy, nonmaleficence, justice, and respect for culture.

Defining Food-as-Medicine in Public Health Nutrition

Evidence-based context

Food-as-medicine is not a single intervention. It is better understood as a group of clinical, community, and policy approaches that use food and nutrition to prevent disease, support chronic disease management, or reduce nutrition-related health inequities. These approaches may include dietary counseling in clinical encounters, referral to registered dietitians, medically tailored meals for patients with complex conditions, fresh produce prescription programs, school and community nutrition initiatives, and public health campaigns (Downer et al., 2020; Mozaffarian et al., 2022).

This definition matters because ethical responsibilities differ across settings. A physician counseling one patient about blood pressure has different responsibilities than a public health organization producing patient education materials or a health system funding a produce prescription program. However, all of these settings share a common obligation: nutrition recommendations should be evidence-informed, realistic, culturally respectful, and clear about their limits.

Food-as-medicine also sits at the boundary between personal behavior and structural conditions. Public health nutrition cannot treat diet as an issue of isolated individual choices. Food choices are themselves shaped by income, food prices, transportation, cooking facilities, marketing, neighborhood food environments, cultural practices, work schedules, caregiving responsibilities, and health literacy (Anderson et al., 2021). A credible food-as-medicine framework must therefore include both advice and enhanced access wherever needed.

Evidence Quality and Communication of Certainty

Evidence-based context

A central ethical problem in nutrition communication is the uneven quality of evidence behind different claims. Nutrition science includes mechanistic studies, observational epidemiology, randomized dietary trials, implementation studies, and guideline syntheses. Each type of evidence has value, but each answers a different question. This commentary argues that ethical communication requires matching the certainty of public language to the strength and type of evidence being described.

These forms of evidence should not be communicated with the same level of certainty. For example, a dietary pattern recommended in evidence-based guidance from government or professional associations is not equivalent to a small trial of an isolated nutrient. Similarly, an association between dietary intake and disease risk should not be described as proof that a food prevents or treats a disease. In public communication, this difference is easily lost.

Ethical food-as-medicine communication should match the strength of the language to the strength of the evidence. Strong language may be appropriate for well-established public health recommendations, such as reducing excessive sodium intake and supporting potassium-rich dietary patterns where clinically appropriate (National Academies of Sciences, Engineering, and Medicine, 2019; World Health Organization, 2012a; World Health Organization, 2012b). More cautious language is needed when evidence is preliminary, indirect, or based mainly on mechanistic reasoning.

Overstatement can cause harm

It can create unrealistic expectations, promote unnecessary spending, encourage distrust when promised benefits do not appear quickly, and fuel misinformation. It can also obscure the difference between supportive prevention strategies and disease treatment. The ethical goal is not to weaken nutrition advice. The goal is to make it accurate. The language used to communicate nutrition findings should reflect both the type of evidence and the level of certainty it supports. Table 1 identifies common communication risks associated with different sources of evidence and offers examples of wording that more accurately conveys their strengths and limitations.

Table 1. Calibrating language to the strength of nutrition evidence

Evidence source	Communication risk	More ethical wording
Mechanistic or laboratory evidence	Biological plausibility may be presented as clinical proof.	"This may help explain a possible pathway, but clinical benefit requires human evidence."
Observational studies	Association may be described as causation.	"This dietary pattern is associated with lower risk in population studies but this does not prove a cause and effect connection."
Randomized dietary trials	Trial findings may be generalized beyond the studied population.	"In this study population, the intervention improved the measured outcome. But we do not know if it can be generalized to everyone."
Guidelines and consensus recommendations	Recommendations may be oversimplified without context.	"This is recommended as part of a broader prevention or treatment plan."

Equity, Food Access, and Structural Barriers

Evidence-based context

The strongest ethical challenge for food-as-medicine is access. Nutrition advice is ethically incomplete when it recommends foods that patients cannot afford, find, prepare, or culturally accept. This commentary therefore treats food access not as a secondary implementation detail, but as a central ethical requirement for credible food-as-medicine communication.

Food insecurity and social determinants of health are not background issues. They directly shape whether food-as-medicine can be implemented. The Academy of Nutrition and Dietetics has emphasized that social determinants influence nutrition and health outcomes (Academy of Nutrition and Dietetics, 2019). If public health messages do not acknowledge these constraints, they may unintentionally frame chronic disease as a failure of personal discipline rather than the result of both individual and structural factors.

Food-as-medicine is most ethically persuasive when advice is paired with material support. Medically tailored meals can improve access for patients who need disease-appropriate nutrition but face practical barriers (Berkowitz et al., 2019). Modeling studies suggest that broader coverage of medically tailored meals could reduce hospitalizations and overall health care expenditures in the United States (Hager et al., 2022). These findings do not mean that meal programs are a universal solution, but they show why food access must be part of an ethical discussion.

Equity also requires cultural realism. Food recommendations should not assume a single universal diet, cooking style, or cultural model of healthy eating. Ethical communication should offer flexible options that respect local food practices while still supporting evidence-based nutrition goals.Culture, Autonomy, and Non-Shaming Communication

Communication grounded in public health ethics

Food is personal, cultural, social, and emotional. Public health nutrition messages can influence behavior, but they can also cause shame if they imply that disease is strictly the result of poor character or irresponsible choices. This commentary argues that non-shaming communication is not optional; it is necessary for autonomy, trust, and culturally respectful care.

Ethical food-as-medicine communication should support autonomy. Patients and communities need understandable information about possible benefits, limitations, uncertainty, and alternatives. They also need recommendations adapted to their resources, culture, and medical context. Autonomy is not served by vague advice, fear-based messaging, or exaggerated claims.

Non-shaming communication does not mean avoiding clear recommendations. It means explaining recommendations in a way that respects the person receiving them. For example, a message can encourage reducing sodium intake while also acknowledging that packaged foods, restaurant meals, food prices, and limited time can make this difficult. The difference matters. One approach blames the patient; the other identifies a health goal and the barriers that must be addressed.

Clinical Boundaries: Food Supports Care but Does Not Replace Care

Communication grounded in patient safety

Food-as-medicine should be integrated with standard medical care rather than positioned as separate from, or even opposed to, it. Diet can support prevention and chronic disease management, but it should not be presented as a replacement for indicated medications, screening, emergency care, cancer treatment, diabetes care, cardiovascular care, or specialist evaluation. This boundary is essential for patient safety and public trust.

The risk is greatest when public messages use disease-treatment language without clinical context. Phrases suggesting that foods can "cure," "reverse," or "replace" treatment are almost always factually incorrect and may encourage patients to delay care. This is especially concerning for people with cancer, severe cardiovascular disease, kidney disease, pregnancy-related conditions, eating disorders, or complex medication regimens.

A related concern is that food-as-medicine messaging can become blurred with supplement or wellness claims. Isolated products should not be presented as equivalent to dietary patterns or as substitutes for either a healthy diet or clinical care. Supplements may have a role in selected deficiency states or clinical situations, but they require careful attention to dose, safety, interactions, and patient risk. For this reason, high-risk patients should be encouraged to discuss major dietary changes or supplement use with a qualified clinician. The ethical boundary is simple: food can support health, prevention, and treatment plans, but it should not be marketed as a stand-alone replacement for evidence-based medical care.

Practical Safeguards for Ethical Food-as-Medicine Communication

Commentary synthesis

Ethical communication requires more than good intentions. Based on the evidence and ethical concerns discussed above, clinicians, public health writers, researchers, health systems, and nutrition-focused organizations can use practical safeguards to reduce misinformation and improve equity. These safeguards are proposed as normative recommendations for broad public communication, not as empirically tested outcomes of the proposals made in this commentary.

Table 2. Practical safeguards for ethical food-as-medicine communication

Ethical concern	Communication risk	Practical safeguard
Evidence quality	Claims are stated with more certainty than the evidence supports.	Name the evidence type and use proportionate language.
Food access	Advice assumes recommended foods are affordable and available.	Discuss cost, access, transportation, food preparation capacity, and local food environments.
Culture	Recommendations do not fit cultural food practices.	Offer culturally flexible examples and avoid one-size-fits-all advice.
Autonomy	Messages rely on fear, guilt, or blame.	Use respectful, non-shaming language that supports informed choice.
Clinical care	Diet is framed as a substitute for treatment.	Always clearly state that food supports prevention and care but does not replace medical treatment.
Commercial influence	Product promotion blurs evidence and marketing.	Disclose conflicts and avoid disease-cure claims or product-centered messaging.

Figure 1 presents an ethical decision pathway for food-as-medicine communication. The proposed pathway assesses evidence adequacy and relevance, certainty calibration, accessibility and cultural appropriateness, and clinical safety. Any "No" response requires corrective action and reassessment before communication proceeds. Claims meeting all criteria may proceed to responsible communication with disclosure of relevant conflicts of interest.

Implications for Public Health Practice and Policy

Public health organizations should translate ethical food-as-medicine principles such as those presented here into operational standards. Health systems and community programs should screen for food insecurity and establish referral pathways to registered dietitians, community health workers, food-assistance services, medically tailored meal providers, and fresh produce-prescription programs where available. Organizations producing nutrition guidance should also implement a review process for public-facing claims. This process should also assess the strength and relevance of the supporting evidence, require plain-language explanations of uncertainty, identify potential conflicts of interest, and specify when clinical evaluation or supervision is necessary. Materials should be reviewed with representatives of the communities they are intended for to ensure recommendations are affordable, accessible, and adaptable to local culture and food practices. At the policy level, governments, funding agencies, and health systems should support implementation and evaluation of food-access interventions rather than relying solely on individual education. Evaluation research should examine not only clinical outcomes but also reach, affordability, cultural acceptability, unintended harms, and whether programs reduce or reproduce existing inequities.

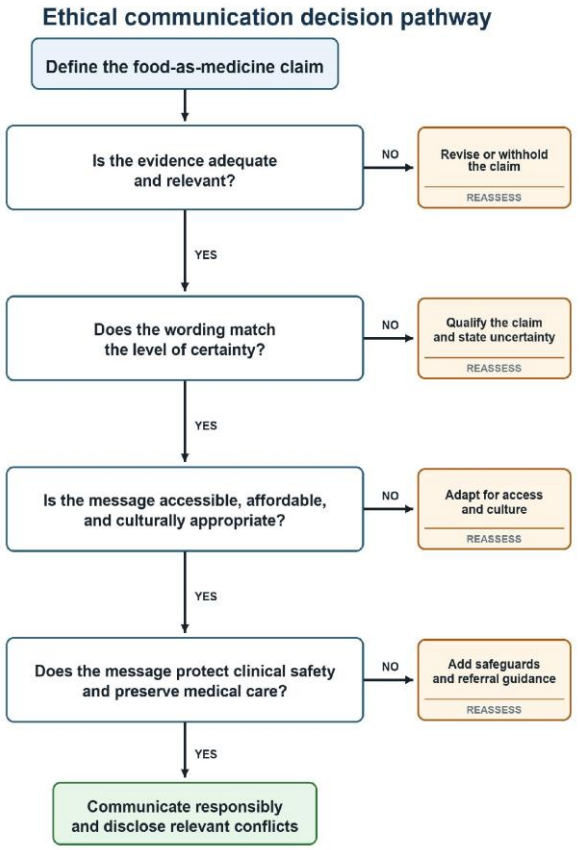


Figure 1. Ethical communication pathway for food-as-medicine

Conclusions

Public health nutrition organizations should consider adopting and evaluating a structured ethical communication checklist that addresses evidence quality, uncertainty, equity, cultural relevance, clinical safety, and conflicts of interest. The safeguards proposed in this commentary are normative recommendations and require empirical evaluation and consensus development before they can be considered a validated or standardized instrument.

Author Contributions

SPC: Conceptualization, Methodology, Investigation, Visualization, Writing – Original Draft, Writing – Review & Editing. The author read and approved the final version of the paper and its submission with consent for publication.

Declaration of Generative AI and AI-Assisted Technologies in Scientific Writing

An artificial intelligence tool was used to assist with drafting, organization, and language refinement. The author reviewed, edited, verified, and takes full responsibility for the final manuscript content, references, interpretation, and conclusions.

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Conflict of Interest

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REFERENCES

Academy of Nutrition and Dietetics (2021). Social Determinants of Health: Enhancing Health Equity. Journal of the Academy of Nutrition and Dietetics.

Anderson, E., Wei, R., Liu, B., Plummer, R., Kelahan, H., Tamez, M., Marrero, A., Bhupathiraju, S., & Mattei, J. (2021). Improving healthy food choices in low-income settings in the United States using behavioral economic-based adaptations to choice architecture. *Frontiers in Nutrition*, 8, 734991. https://doi.org/10.3389/fnut.2021.734991

Berkowitz, S. A., Delahanty, L. M., Terranova, J., Steiner, B., Ruazol, M. P., Singh, R., & Wexler, D. J. (2019). Medically tailored meal delivery for diabetes patients with food insecurity: A randomized cross-over trial. *Journal of General Internal Medicine*, 34(3), 396–404. https://doi.org/10.1007/s11606-018-4716-z

Downer, S., Berkowitz, S. A., Harlan, T. S., Olstad, D. L., & Mozaffarian, D. (2020). Food is medicine: Actions to integrate food and nutrition into healthcare. *BMJ*, 369, m2482. https://doi.org/10.1136/bmj.m2482

Global Burden of Disease 2017 Diet Collaborators. (2019). Health effects of dietary risks in 195 countries, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, 393(10184), 1958–1972. https://doi.org/10.1016/S0140-6736(19)30041-8

Hager, K., Cudhea, F. P., Wong, J. B., Berkowitz, S. A., Downer, S., & Mozaffarian, D. (2022). Association of national expansion of insurance coverage of medically tailored meals with estimated hospitalizations and health care expenditures in the US. *JAMA Network Open*, 5(10), e2236898. https://doi.org/10.1001/jamanetworkopen.2022.36898

Mozaffarian, D., Blanck, H. M., Garfield, K. M., Wassung, A., & Petersen, R. (2022). A food is medicine approach to achieve nutrition security and improve health. *Nature Medicine*, 28, 2238–2240. https://doi.org/10.1038/s41591-022-02027-3

National Academies of Sciences, Engineering, and Medicine. (2019). Dietary Reference Intakes for Sodium and Potassium. The National Academies Press. https://doi.org/10.17226/25353

U.S. Department of Agriculture and U.S. Department of Health and Human Services. (2020). Dietary Guidelines for Americans, 2020–2025. 9th Edition. https://www.dietaryguidelines.gov/

World Health Organization. (2012a). Guideline: Potassium Intake for Adults and Children. World Health Organization. https://www.who.int/publications/i/item/9789241504829

World Health Organization. (2012b). Guideline: Sodium Intake for Adults and Children. World Health Organization. https://www.who.int/publications/i/item/9789241504836