VIEWPOINT

Scott Kahan, MD, MPH

Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland; and George Washington University School of Medicine, Washington, DC.

JoAnn E. Manson, MD, DrPH

Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts; and Department of Epidemiology, Harvard T. H. Chan School of Public Health, Boston, Massachusetts.

Corresponding

Author: JoAnn E. Manson, MD, DrPH, Brigham and Women's Hospital, Harvard Medical School, 900 Commonwealth Ave, Third Floor, Boston, MA 02215 (jmanson@rics .bwh.harvard.edu).

jama.com

Nutrition Counseling in Clinical Practice How Clinicians Can Do Better

Despite overwhelming evidence that relatively small dietary changes can significantly improve health, clinicians seldom discuss nutrition with their patients. Poor nutritional intake and nutrition-related health conditions, such as cardiovascular disease (CVD), diabetes, obesity, hypertension, and many cancers, are highly prevalent in the United States, ¹yet only 12% of office visits include counseling about diet.² Even among highrisk patients with CVD, diabetes, or hyperlipidemia, only 1 in 5 receive nutrition counseling.² It is likely that many patients receive most of their nutrition information from other, and often unreliable, sources.

These data may reflect the minimal training, time, and reimbursement allocated to nutrition counseling (and preventive services in general) in clinical practice.³ Most physicians and other health care professionals receive limited education on nutrition in medical school (or other professional schools) or in postgraduate training. Just 25% of medical schools offer a dedicated nutrition course, a decline since the status of nutrition education in US medical schools was first assessed in 1985, and few medical schools achieve the 30 hours of nutrition education recommended by the National Academy of Sciences.⁴ As a result, physicians report inadequate nutrition knowledge and low self-efficacy for counseling patients about diet.³ In addition, time pressures, especially in primary care, limit opportunities to counsel on nutrition or address preventive issues beyond patients' acute complaints. Lack of time is frequently cited as the greatest barrier to counseling on nutrition and obesity.³

Moreover, nutrition and behavioral counseling have traditionally been nonreimbursed services. Few state Medicaid programs cover nutrition or obesity counseling, and before 2012, Medicare explicitly excluded coverage for obesity counseling; although now a reimbursed service for Medicare beneficiaries, just 1% of eligible Medicare beneficiaries receive this counseling.⁵ Dietitian counseling is also excluded by Medicare, unless patients have diabetes or renal disease. Although the Affordable Care Act mandates coverage for services graded A or B by the US Preventive Services Task Force, including nutrition counseling for patients with CVD risk factors and obesity counseling for patients with a body mass index of 30 or greater, existing private health insurance benefits are inconsistent, and the covered services are often unclear to both clinicians and patients, thereby limiting use.

Furthermore, health behavior change counseling is often frustrating given the current food environment, in which less nutritious foods tend to be less expensive, larger portioned, more easily accessible, and more heavily marketed than healthier options, making patient adherence to nutrition advice challenging.⁶ Conflicting and confusing nutrition messages from popular books, blogs, and other media further complicate patient decision making.

Despite these unfavorable trends, there has been progress in this area. The evidence base supporting the benefits of nutrition intervention and behavioral counseling is expanding. Renewed focus on nutrition education in health care professional training is being driven by both student demand and the health care system. Although time pressures and reimbursement remain impediments, incentives and reimbursement options for nutrition and behavioral counseling are growing, and value-based care and health care team approaches hold promise to better align time demands and incentives for long-term care management. Initiatives to integrate clinical care and community resources offer opportunities to leverage resources that alleviate the clinician's time commitment. There is evidence of some success; for instance, the amount of sugar-sweetened beverages consumed by individuals in the United States has declined substantially over the past 10 years.⁷

Clinicians can take the following reasonable steps to include nutrition counseling into the flow of daily practice:

- Start the conversation. Several short, validated screening questionnaires are available to quickly assess need for nutrition counseling, such as the Starting the Conversation tool⁸ (Table). This approach can be efficiently used prior to seeing the patient at an appointment, either delivered by medical assistants as part of vital sign assessment or as prescreening paperwork for patients to complete online or in the waiting room.
- 2. Structure the encounter, using methods such as the "5 A's" (assess, advise, agree, assist, arrange), which has been adapted from tobacco counseling. Motivational interviewing, which has documented efficacy in numerous behavior change settings, is particularly helpful to engage patients who are not yet committed or are hesitant to consider behavioral change.
- Focus on small steps. Changing lifelong nutrition be-3. haviors can seem overwhelming, but even exceedingly small shifts can have an effect (Table). For example, increasing fruit intake by just 1 serving per day has the estimated potential to reduce cardiovascular mortality risk by 8%, the equivalent of 60 000 fewer deaths annually in the United States and 1.6 million deaths globally.⁹ Other examples include reducing intake of sugar-sweetened beverages, fast food meals, processed meats, and sweets, while increasing vegetables, legumes, nuts, and whole grains. Emphasize to patients that every food choice is an opportunity to accrue benefits, and even small ones add up. Small substitutions still allow for "treats," such as replacing potato chips and cheese dip with tortilla chips and salsa, the latter

lowering *trans* fats and saturated fat and increasing whole grain and vegetable intake (Table).

- 4. Use available resources. Numerous extracurricular resources are readily available for clinicians. The Nutrition in Medicine program offers online, evidence-based nutrition education and tutorials for clinicians and an online, core nutrition curriculum for medical students. The Dietary Guidelines for Americans offers evidencebased and freely available nutrition guidance, tutorials, and tools for clinicians and patients alike. A companion website, Choose My Plate, offers nutrition and counseling advice for clinicians and handy resources for patients, including recently added videos with useful examples of small substitutions that patients will appreciate.
- 5. Do not do it all at once. Expecting to create long-term behavioral change during a single episode of care is a recipe for frustration and failure, for both the patient and clinician. Empowering and supporting patients is an ongoing process, not a 1-time curative event. Use a few minutes at the close of a patient visit to identify opportunities for future counseling, offer to serve as a resource, and begin a discussion and support that can be reinforced over time. Take solace in knowing that small initial steps can quickly improve health; for example, reducing *trans* fats at a single meal (eg, replacing baked goods with fruit or nuts or fried foods with nonfried alternatives) promptly improves endothelial function.¹⁰
- 6. Do not do it all alone. The primary care physician need not be the sole clinician who provides nutrition counseling. Proactive use of physician extenders (eg, physician assistants, nurses, medical assistants, and health coaches) and referrals can alleviate much of the burden for the busy clinician. Receptionists can distribute assessment and screening questionnaires for patients to complete in the waiting room; medical assistants can document behavioral change progress while assessing vital signs; administrative staff can identify and contact patients who are overdue for interaction. Large practices may benefit from including nutrition or health coaches on staff. Referring to clinical specialists and community-based support programs can significantly extend the clinician's reach.⁷ In addition to registered dietitians, numerous clinical and community resources are available and often covered by insurance plans. Board-certified obesity medicine specialists, certified diabetes educators, and physician nutrition specialists are available as referrals in many areas. Diabetes Prevention Program group counseling sessions are now covered by Medicare and available throughout communities, such as in many YMCA sites, and electronically.

ble. Starting the Conversation on Dietary Changes		
ssessing Dietary Patterns ^a	Reasonable Target Change ^b	Example of Realistic Small Substitutions
sk patients about the requency of these dietary ntakes occurring over the revious few months		
Fast food meals or snacks per month	Decrease by 1 fast food meal per week	Replace 1 fast food meal per week with a prepared food from supermarket or a sandwich from home
Servings of fruit per day	Increase by 1 serving per day	Add fresh, frozen, or canned fruit to yogurt
Servings of vegetables per day	Increase by 1 serving per day	Add fresh, frozen, or canned vegetables to yogurt smoothie
Regular sodas, juices, or other sugary beverages per day	Decrease by 1 sugary beverage per day	Replace a sugared soda with water or flavored water, lightly sweetened tea, or coffee
Servings of beans, nuts, chicken, or fish per week	Increase fish/seafood by around 1 serving per week	Replace a fast food entrée or processed meat (eg, ham) sandwich with tuna fish sandwich
Regular snack chips or crackers per week	Decrease by 1 serving per week	Replace 1 serving of snack chips or crackers with a handful of nuts
Desserts and other sweets per week	Decrease by 1 serving per week	Replace 1 sugary sweet or dessert with a fruit or a handful of nuts
Use of butter or meat fat	Decrease <i>trans</i> and saturated fats as seasoning	Replace butter with light drizzle of olive oil and/or spices

 $^{\rm a}$ An example of a brief nutrition behavior assessment tool, modified from Paxton et al. $^{\rm 8}$

^b Reasonable target changes in consumption, adapted from Mozaffarian and Capewell.⁹

Although there is no conclusive evidence that these steps will improve diet and health outcomes for patients, there is virtually no harm in counseling and the potential gains, especially at the population level, are substantial. Nutrition and health behavior change must become a core competency for virtually all physicians and any other health professionals working with patients who have or are at risk for nutrition-related chronic disease.

ARTICLE INFORMATION

Published Online: September 7, 2017. doi:10.1001/jama.2017.10434

Conflict of Interest Disclosures: All authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none were reported.

REFERENCES

1. Ward BW, Schiller JS, Goodman RA. Multiple chronic conditions among US adults: a 2012 update. *Prev Chronic Dis.* 2014;11:E62.

2. Office of Disease Prevention and Health Promotion. Healthy People 2020. https://www .healthypeople.gov/2020/data-search/Search-the -Data#srch=nutrition. Accessed January 23, 2017. 3. Kolasa KM, Rickett K. Barriers to providing nutrition counseling cited by physicians. *Nutr Clin Pract.* 2010;25(5):502-509.

4. Adams KM, Kohlmeier M, Zeisel SH. Nutrition education in U.S. medical schools: latest update of a national survey. *Acad Med*. 2010;85(9):1537-1542.

5. Batsis JA, Bynum JPW. Uptake of the Centers for Medicare and Medicaid obesity benefit: 2012-2013. *Obesity (Silver Spring)*. 2016;24(9):1983-1988.

6. Kahan S, Cheskin LJ. Obesity and eating behaviors and behavior change. In: Kahan S, Gielen AC, Fagan PJ, Green LW, eds. *Health Behavior Change in Populations*. Baltimore, MD: Johns Hopkins University Press; 2014:chap 13.

7. Rehm CD, Peñalvo JL, Afshin A, Mozaffarian D. Dietary intake among US adults, 1999-2012. *JAMA*. 2016;315(23):2542-2553.

8. Paxton AE, Strycker LA, Toobert DJ, Ammerman AS, Glasgow RE. Starting the conversation performance of a brief dietary assessment and intervention tool for health professionals. *Am J Prev Med*. 2011;40(1):67-71.

9. Mozaffarian D, Capewell S. United Nations' dietary policies to prevent cardiovascular disease. *BMJ*. 2011;343:d5747.

10. Williams MJA, Sutherland WHF, McCormick MP, de Jong SA, Walker RJ, Wilkins GT. Impaired endothelial function following a meal rich in used cooking fat. *J Am Coll Cardiol*. 1999;33(4):1050-1055.