The following materials are excerpted from the *Culinary Medicine Curriculum*, which is available in full for free download at https://lifestylemedicine.org/culinary-medicine . Feel free to edit and repurpose with attribution as noted in the *Culinary Medicine Curriculum*.

## Eating Healthy on a Budget

For many individuals, a significant barrier to healthy eating is cost. Foods higher in *nutrient* density, such as fruits and vegetables, are associated with higher per-calorie costs than refined grains and sweets.<sup>83</sup> Additionally, the extra time required for preparing and cooking healthy meals may make healthy eating seem more difficult for those with limited time and money. Although the relatively low *calorie* density of whole, plant foods can be beneficial in maintaining a healthy weight while feeling satiated, eating a plant-based diet may also make it difficult for some with very limited food budgets (e.g., those using safety net food programs such as food banks or governmental food assistance) to achieve adequate caloric intake on a budget. In addition, the investment in equipment necessary for cooking, as well as access to a kitchen, may be obstacles for some individuals. However, those with even a modest food budget can eat a diet rich in whole, plant foods—if they know how to cook, meal plan, and have access to a kitchen.

Counseling patients on adopting a healthier diet requires not only an understanding of culture, nutrition, and cooking skills, but also an understanding of how economic barriers contribute to underconsumption of healthy foods. A key step when working with patients is to acknowledge cost as a barrier to healthy eating, and to discuss individual concerns and limitations with patients when introducing steps toward a healthy diet. Approach dietary behavior change as moving along a spectrum toward a healthier diet. This is particularly useful in working with those of limited means because it acknowledges the varying levels of difficulty that people face in making dietary changes, encourages changes of any size, and acknowledges that any step toward healthier lifestyle is positive and beneficial.

Although fresh, whole foods might cost more per calorie than highly processed foods, there are ways to make a healthy diet more affordable for those with limited food budgets. These include:

- Don't buy prepared foods. Whole plant foods can actually be quite inexpensive if purchased in their unprepared states. The grocery bills really add up when purchasing prepared or partially prepared dishes made with these same ingredients.
- Learn to cook and do it often. Find the time and learn the skills needed to cook. The more you cook, the healthier you'll eat and the less money you'll spend.
- Buy in bulk. Many dry pantry staples, such as grains, legumes, nuts, and seeds, can be purchased in bulk at grocery stores and supermarkets. When purchased in bulk, these items are usually lower cost than pre-packaged staples. For fresh items, make sure to buy in bulk only if you can use the quantity purchased—either by eating fresh or freezing—before it spoils. Some people buy fresh in bulk and split with others in their neighborhood or community.
- Buy just what you need from bulk bins. Rather than large amounts, "bulk" can also refer to bulk bins (or jars), such as those at markets that allow you to buy just what you need. This is great for herbs or spices that are expensive to buy as a full jar and may go otherwise unused on a shelf. Bulk bins are also nice when trying new beans or grains to make sure you like them before committing to buying larger quantities.
- Avoid food waste. Know what fresh items you have and make a plan to use or freeze them.
- Turn cooking into a social activity and practice meal prepping. Because lack of leisure time is a key barrier to healthy eating, frame cooking as an activity that the whole family can participate in. This may make it more appealing to those who currently see cooking as a time-consuming activity that doesn't fit into their busy schedule. Similarly, strategizing how to meal prep to efficiently prepare several meals in advance may be appealing to those who do not have time to cook on a daily basis.

- Don't pay for beverages. Water is the healthiest drink and most tap water is safe and (almost) free. If you do
  purchase beverages, stick with unsweetened coffee and tea that you make at home. These options are naturally
  sugar-free and nearly calorie-free.
- Avoid meat. Meat is expensive; eating less can save you money and improve your health. Opting for plant-based proteins in their unprocessed or minimally processed states—such as legumes or tofu—will benefit your budget and your health.
- Buy in-season and look for sales. These are great strategies to save money on produce. Similarly, look for grocery stores in your area that carry produce that has limited shelf-life remaining to find steep discounts.
- **Go back for "seconds" at the farmer's market.** Seconds are produce that either need to be used quickly to prevent spoiling or that have an imperfect appearance, but still taste good. You can often purchase these for a fraction of the price of the more perfect produce. Finding ways to turn these items into soups or sauces will allow you to freeze for later use.
- **Go to the farmer's market near closing time.** You can bargain with vendors for steeply reduced rates on produce because they don't want to have to take leftover produce back with them when the market closes.
- Stretch your SNAP (aka. "food stamp") benefits at the farmer's market. You can double your dollars at the main market stand at many farmer's markets, allowing you to purchase twice as much produce.
- Avoid canned fruits and vegetables. If you have a freezer, it is generally more economical to purchase frozen over canned fruits and veggies. Frozen also tastes better than canned and is less likely to have added sugars, salt, or chemicals leached from the plastic lining that occur in commercially canned food. If you do buy canned, avoid those with syrups and high salt contents.
- Avoid empty calories like white bread, cakes, cookies, and other items that are highly processed and filled with refined flours and added sugars because these may, contribute to food cravings and have limited nutritional value beyond extra calories.
- Use water instead of stock in recipes or make your own stock from vegetable scraps.
- Learn when buying organic matters. Emphasize that fresh produce does not have to be organic to be a healthy choice. Any produce that can be added to the diet is better than none at all. If individuals can afford to avoid exposure to non-organic pesticides, direct them to the Environmental Working Group's *Dirty Dozen* and *Clean 15* lists which highlight produce items most and least likely to have high levels of pesticides and contaminants, respectively. If able to spend money on only limited organic produce, opt for those on the *Dirty Dozen* list.<sup>84</sup>
- Make use of restaurant supply stores and second-hand stores for essential equipment. More information on finding affordable cutlery, bakeware, and gadgets can be found in the Essential Kitchen Equipment & Tools handout. Along with finding less-expensive sources, distinguishing necessary equipment from superfluous kitchen gadgets is key.

Although these strategies are intended to make it easier for individuals to afford healthy changes to their diets, this is not to say that eating a healthy diet on a low-income budget is easy even when one implements these money-saving strategies. Lack of a living wage, the persistence of food deserts in low-income regions, disparities in leisure time, and the initial investment required to purchase tools and regular access to a kitchen are all barriers to healthy eating and should be taken into consideration when counseling individuals about strategies to adopt a healthier diet.

## Food Insecurity

Make sure to screen all patients for food insecurity—a highly prevalent condition affecting 1 in 8 people in the U.S. and 1 in 9 (820 million) around the globe.<sup>85,86</sup> Food insecurity is defined by the U.S. Department of Agriculture as lack of consistent access to enough food to live an active, healthy life.<sup>87</sup> This is distinct from hunger—a related concept referring to an uncomfortable, physical sensation. Food insecurity refers to the lack of available financial and other resources needed for food at the household level.<sup>87</sup>

The following is a validated, 2-question screener to assess for food insecurity<sup>88</sup>:

Script: "I'm going to read you two statements that people have made about their food situation. For each statement, please tell me whether the statement was often true, sometimes true or never true for your household in the last 12 months."

1. "We worried whether our food would run out before we got money to buy more." Was that often true, sometimes true, or never true for your household in the last 12 months?

## 2. "The food that we bought just didn't last, and we didn't have money to get more." Was that often, sometimes, or never true for your household in the last 12 months?

A response of "often true" or "sometimes true" to either question = positive screen for food insecurity.

Anyone with a positive screen for food insecurity should be connected with local resources to assist with acquisition of free, healthy foods. Familiarize yourself with food resources in your area, particularly if you treat a high proportion of patients with food insecurity. In the U.S., you can find a local food bank by searching on the Feeding America website: <u>https://www.feedingamerica.org/</u>. In addition to direct provision of food, food banks can also generally assist clients in signing up for federal and state food assistance programs.

## **Cultural Considerations**

All of us are influenced by our cultures of origin and the people who surround us. These cultural influences vary from person to person. Taking time to understand the cultural and emotional importance individuals place on food is important when counseling them on healthy dietary behavior changes. Lifestyle Medicine rightly emphasizes healthy relationships, stress management, physical activity, sufficient sleep, and not abusing substances in addition to a predominantly whole food, plant-based diet. Make sure that diet recommendations don't take away from health in these other areas. For example, you might recommend incorporating produce, other healthful ingredients, and cooking techniques commonly used in a given patient's food tradition as the basis for dietary recommendations rather than recommending healthy foods from your own cultural food tradition. Additionally, encourage patients to engage their household in making healthy dietary changes so as not to alienate them around mealtimes. Recommend changes that don't take a lot of time and don't have a steep learning curve to limit added stress.

Take time to better understand the food cultures in your community of practice so that you can tailor your dietary recommendations accordingly. Most cuisines can be tailored to focus on healthier aspects without excluding traditional foods entirely, and many traditional cuisines are healthier than modern, ultra-processed and fast food options. Many food traditions around the world draw more heavily on produce, legumes, and spices than the SAD. Emphasize increasing or reintroducing these traditional foods for those that have begun to adopt SAD or similar diets. For food traditions heavy in meat and highly processed carbohydrates, approaches such as the *Protein Flip* and *Dessert Flip* (described previously) may be good places to start. Knowledge about easy substitutions can also be useful (e.g., healthier cooking techniques, replacing refined grain products with whole grain options, making sauces creamy without butter and heavy cream, etc.).

Throughout this curriculum, different flavors from around the world are highlighted to give students experience with ingredients and techniques they may not have used before. The techniques chosen are common to many food traditions around the world and are therefore highly translatable for providers and patients of varying backgrounds. The final project for this curriculum is a potluck wherein each student chooses a dish that means something to them, and highlights lessons learned in the course. They prepare this dish and share it with the class, describing the dish, what it means to them, why it highlights lessons learned in the course, and how they will use what they learned in the course to help their current and future patients. This capstone experience gives further insight to students about varying food cultures and provides more proof that any type of cuisine can be prepared in a healthy way.