THE PRINCIPLES

MENU CONCEPTS AND GENERAL OPERATIONS

1. Be Transparent. Let customers know how your food was produced, including information on labor, animal welfare, and environmental practices. Inform your customers about calories and nutrition.

2. Fresh and Seasonal, both Local and Global. Source fresh, peak-of-season foods from farms that use more sustainable growing practices, including local producers and those in more distant regions.

3. Reward Better Agricultural Practices. Shift purchases to farms and ranches that protect and restore natural systems and reduce greenhouse gas emissions through effective management practices.

4. Globally Inspired, Largely Plant-Based Cooking. Increase the ratio of plant-centric foods and preparations to those from animal sources, leveraging flavor strategies of traditional food cultures around the world to support menu innovation.

5. Focus on Whole, Minimally Processed Foods. Emphasize slow metabolizing calories, and leave room for healthy processed foods—from frozen vegetables to low-sodium tomato paste and canned beans.

6. Grow Everyday Options, While Honoring Special Occasion Traditions. Expand everyday food and menu choices that embrace current nutrition and environmental science.


8. Right Size Portions. Reduce portion sizes without undercutting profits by changing the value proposition for customers from an emphasis on quantity to a focus on flavor, culinary adventure, new menu formats, and the overall dining experience.

9. Celebrate Cultural Diversity. Savor our culinary heritage while reimagining those elements of culturally-based food traditions that may be less healthy by limiting portion size, rebalancing ingredient proportions, or offering these foods less often.


FOODS AND INGREDIENTS

1. Think Produce First. Focus on fruits and vegetables first—with great diversity across all meals and snacks.

2. Make Whole, “Intact” Grains the New Norm. Choose 100 percent whole-grain bread, brown rice, and whole grain and/or higher protein pasta.

3. Potatoes: New Directions for Sides. Limit your use of potatoes as a “platão filler” by combining smaller portions of them with other, non-starchy vegetables, featuring them less often, and offering healthier vegetables instead.

4. Move Nuts and Legumes to the Center of the Plate. Nuts and legumes are an excellent source of protein. They also add flavor and increase satiety.

5. Choose Healthier Oils. Fats high in unsaturated fats, such as canola, soy, peanut, and olive oils, as well as fish, nuts, seeds, avocados, and whole grains, are heart healthy. Avoid trans fats.

6. End the Low-fat Myth. Use beneficial fats, associated with optimal nutrition and healthy weight, to increase the appeal of other healthy ingredients such as vegetables and whole grains.

7. Serve More Kinds of Seafood More Often. Introduce diners to a wider variety of seafood sourced from responsibly managed fisheries.

8. Milk, Cheese, and Yogurt in a Supporting Role. Limit servings of dairy to one to two per day, leverage the flavor of cheese in smaller amounts, minimize the use of butter, and highlight yogurt (with no added sugar) as a choice in professional kitchens.

9. Poultry and Eggs in Moderation. Both are good choices of healthier protein with a far lower environmental footprint than red meat.

10. Red Meat: Smaller Portions, Less Frequently. Feature red meat in a supporting role to healthier plant-based choices, and also experiment with red meat as a condiment.

11. Reduce Added Sugar. Turn to ingredients like fruits, whole grains, dark chocolate, nuts, and healthy oils as alternatives in desserts, and substantially reduce sugar across the menu.

12. Cut the Salt. Stop relying on salt to deliver flavor. Instead use high-flavor produce, spices, herbs, citrus and other aromatics, healthy sauces, and seasonings.

13. Reduce Sugary Beverages and Innovate. Offer smaller servings, discourage frequent consumption, and promote the products of emerging and established brands that are developing solutions in this challenging area.

14. Drink Healthy. Serve water (plain, with fruit, herbs and aromatics, or other natural flavors), plain coffee and tea, and wines, beers, and spirits (in moderation, and with caveats).

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Consumers say they want food that is healthier, sustainable, and ethically sourced. But figuring out which foods to eat is not as easy as perhaps it should be; the dining public is looking to chefs and food-industry leaders to help them make the “right” choices. Culinary professionals are responding. But giving people what they want isn’t always easy either. Some diners believe that foods advertised as “farm to table” or certified with sustainability labels are also healthier. While customers don’t always purchase what they say they want, these trends are profoundly changing the landscape of the foodservice business.

These Principles of Healthy, Sustainable Menus, an outgrowth of the Menus of Change™ Leadership Initiative co-presented by The Culinary Institute of America (CIA) and Harvard School of Public Health (HSPH) Department of Nutrition, represent unique guidance for the foodservice industry. They bring together findings from nutrition and environmental science perspectives on optimal food choices, trends in consumer preferences, and impacts of projected demographic shifts to provide culinary insight and menu strategies that build on promising innovation already occurring in the sector.

The principles anticipate that fast-moving, mid- and long-term global trends—from continued population growth and increasing resource shortages to commodity price spikes and food security issues—will increasingly reframe how we think about food and foodservice in the United States. They also consider that the rise in diet-linked chronic diseases suggests that many of today’s food and foodservice business models cannot hold for the long term. They outline pivotal culinary strategies that are needed to increase the success of new business initiatives and models, ones that will ensure that customers reward pioneering and innovative restaurants and other industry operations.

In short, the Menus of Change Principles offer a guide to optimal menu design and innovations for future culinary development to promote the foodservice industry’s full measure of creativity and entrepreneurial dynamism in support of a future of tremendous, untapped opportunity.

Collectively, these principles and strategies also speak to our most vulnerable members of society. Chefs who are inspired by the possibility of delicious, healthy, and sustainable foods are working to make these flavors more accessible across America, in K-to-12 schools, in hospitals, and in low-income neighborhoods. Without the benefit of culinary expertise and insight, a focus on inexpensive ingredients—and minimal food budgets—is often a recipe for failure, whether the customer is a child or an adult, middle-class or economically disadvantaged, or healthy or sick.

Finally, the Menus of Change Principles are designed to be part of an interactive, evolving process. Science progresses, trends shift, new opportunities and challenges come to light—and so we will revisit and revise this document annually. Please join the conversation at the annual Menus of Change Leadership Summit or online to help us to strengthen this essential guidance for the foodservice sector. You can reach us info@menusofchange.org.

For additional guidance on sustainability and nutrition science–based dietary, consult the CIA-HSPH Menus of Change website, www.menusofchange.org and the HSPH’s Nutrition Source website, www.nutritionsource.org, which includes additional CIA-HSPH integrated diet and culinary-strategy information.

Our Approach: Diversity of Strategies

Any approach to providing guidance on nutrition, the environment, and culinary insight to business leaders must recognize that America’s $660 billion foodservice industry is as diverse as it is large and omnipresent in our culture. Customers, quite apart from their interest in health, sustainability, or food ethics, look to different kinds of operations to fill a variety of needs and interests. Appetites and preferences vary, depending on whether the meal is a workplace lunch, a mid-week dinner with the family, a snack on the run, or a celebratory occasion. What a diner or a family chooses to eat and order in a single instance is less important for our health and the environment than the aggregate pattern over days and weeks. Chefs and the foodservice industry have an enormous opportunity to embrace change, while still preserving a wide range of options for an American public that often wants someone else to do the cooking. These principles and strategies, together with the Menus of Change Annual Report, are intended to support innovation on the part of operators and entrepreneurs wherever they are positioned in the industry, and help connect them with their aspirations, and their unique views of imperatives and opportunities.
1. Transparency and Consumer Values. Providing your customers with abundant information about food production methods, sourcing strategies, calorie and nutrient values, labor practices, animal welfare, and environmental impacts is a necessity in our technology-driven and networked era. Consumer engagement is driven by the rise in food-safety and fraud alerts, a growing interest in sustainability and food ethics, and a hyper-connectivity that yields instant access to information such as impending crop failures or the latest farm-labor conditions across global supply chains. Consumers can find out information about what they eat regardless of what chefs and businesses choose to share. Food operators can build trust by learning about environmental and social issues in the food system and sharing information about their own practices. Identifying the farms that grow key ingredients, for example, is a strategy that creates value and brand identity and one that is quickly becoming a standard practice. Going further and explaining how food is produced and the rationale for sourcing decisions is the next step, while attempts to restrict information on hot-button consumer issues such as calories, trans fats, genetically modified ingredients or processing methods are not likely to survive over the long term. Operators who do not adjust business models and strategies to anticipate the impacts of this accelerating trend risk disappointing the dining public and having to play costly catch-up as such issues assume greater urgency with the public.

2. Fresh, Seasonal, both Local and Global. For chefs, locally sourced fruits and vegetables can help create unbeatable flavors—and marketing opportunities. But sourcing local also offers other advantages: Smaller, local, or regional producers are sometimes more willing to experiment with varieties that bring interest and variety to the table. Supporting local and regional farms also can play an important role in building community by encouraging school children, retailers, media, and others to learn how to grow food, steward the land, and adopt healthier eating habits. But a farm’s local and regional customers and its products are not the most important environmental considerations. Food transportation makes up only 7-11 percent of energy use and carbon emission from food production; the vast majority comes from on-farm growing practices. Sourcing food from farms of all sizes that use more sustainable growing practices, including those in more distant regions, is a key strategy to increase healthier, sustainable, and flavorful menu choices. All chefs, and especially high-volume corporate chefs, should get involved in choosing suppliers and ingredients in order to advance environmentally friendly production practices—and farming for flavor—in global networks, just as they promote local, family-owned producers. Finally, chefs in partnership with their purchasing colleagues can play a significant role in fostering vibrant regional distribution and processing infrastructures to reenergize regional food systems, preserve regional flavors, and drive greater innovation.

3. Better Agricultural Production Methods: Rewarding Best Practices. Sourcing sustainably is complex, but there are two rules of thumb for the culinary profession. First, growing plants for food generally has a less negative impact on the environment than raising livestock, which have to eat lots of plants to produce a smaller amount of food. Second, the environmental cost of food is largely determined by how it is produced. The best farms and ranches protect and restore natural systems and reduce emissions through effective management practices, such as choosing crops well-suited for their local growing conditions, minimizing their use of pesticides and fertilizers, and avoiding the use of groundwater for irrigation. Farms that follow these practices sometimes qualify for organic or other sustainable-farming certifications. But many simply adopt better practices without adhering to the formal rules. Biotechnology has helped some popular crop varieties to grow better in a wider range of climates. But they may need more chemicals and irrigation than crops naturally suited for a particular area—and doubts persist, rightly or wrongly, in consumers’ minds about their safety. Menu R&D has a profound impact on what farmers grow. The most powerful strategies include aligning menus to emphasize fresh foods during the peak of their growing season and shifting purchases towards farms that have responsible management programs.

4. Globally Inspired, Largely Plant-Based Cooking. Scientific research suggests that the most effective way to help diners make healthy, sustainable food choices is to shift our collective diets to largely plant-based foods. In fact, no other single decision in the professional kitchen—or in the board rooms of foodservice companies—can compare in advancing global environmental sustainability. From the now well-researched Mediterranean diet to the cuisines of Asia and Latin America, traditional food cultures offer a myriad of flavor strategies to support innovation around healthy, delicious, even craveable, plant-based cooking.

5. Whole, Minimally Processed Foods—with Important Caveats. In general, consumers and chefs should first focus on whole, minimally processed foods, mostly from plant sources. Such foods are typically higher in micronutrient value and less likely to contain high levels of added sugars, saturated or trans fats, and sodium. (Indeed, nearly three-quarters of the sodium in the U.S. food supply is estimated to come from processed foods.) Whole or minimally processed foods are also typically slowly metabolized, preventing sharp increases in blood sugar that over time may lead to insulin resistance. That said, many processed foods—low-sodium tomato paste, wine, nut butters, frozen vegetables, mayonnaise, dark chocolate, canned low-sodium beans, 100 percent whole-grain crackers, fresh-cut vegetables, spice mixtures, yogurt, reduced sodium sauces, many kinds of canned fish and shellfish, among other things—can be incorporated into healthy meals. Processing can also be used to extend the season of local and sustainably grown produce and to make use of imperfect foods, especially produce.

6. Grow “Everyday” Options, While Honoring Special Occasion Traditions. The foodservice industry historically developed around special occasion dining. Today’s industry is increasingly responsible for providing everyday food choices to a significant segment of the U.S. population. From a health and environmental perspective, there will always be room in the industry for indulgence and special occasion foods. But the real opportunity in menu and concept development is the expansion of everyday food and menu choices that embrace current nutrition and environmental science, as well as emerging consumer values about how food is produced.

7. Promote Health Through Inspiring Menus. To sell healthy and sustainable food choices, it is important to lead with messages about flavor, rather than actively marketing health attributes. Research shows that taste trumps nearly all, even if customers want chefs, on some level, to help them avoid foods that increase their risk of chronic disease. Messages that chefs care and are paying attention to how and from whom they are sourcing their ingredients—such as by naming specific farms and growing practices (e.g., organic)—can enhance perceptions of healthier food choices (if in fact they are healthier).

8. Portion Size and Calorie Quality. Moderating portion size is one of the biggest steps foodservice operators can take towards reversing obesity trends and reducing food waste. This is different than offering multiple portion sizes, as many diners “trade up” to bigger portions, which they see as offering greater value. Consider menu concepts that change the value proposition for customers from an overemphasis on quantity to a focus on flavor, nutrient quality, culinary adventure, new menu formats, and the total culinary and dining experience (thereby mitigating potential downward pressure on check averages). Calorie quality is also as important. Dishes should feature slowly metabolizing whole grains, plant proteins including nuts and legumes, and healthy oils that promote lasting satiety as well as create great flavors.

9. Celebrating Cultural Diversity, Leveraging Demographic Changes. Our collective respect for cultural diversity and the honoring and preservation of family traditions and centuries-old food cultures is as vital as our public health and environmental sustainability. Happily, these imperatives are compatible. Chefs collaborating with nutrition experts and public-policy leaders need to reimagine the role of less healthy, culturally-based food traditions by limiting portion size, rebalancing ingredient proportions, or offering them less often. Dramatic, emerging demographic changes and greater global connectivity are making the American palate more adventurous, giving foodservice leaders a long-term opportunity for creative menu R & D.

10. Designing Operations for the Future. Food and menu design are not the only ways to advance sustainability in foodservice. Choices that affect the way restaurants and other foodservice operations are designed, built, and operated are also important. These include imagining kitchens that support the optimal preparation of fresh, healthy foods, and selecting energy- and water-efficient equipment and environmentally friendly building materials. Dining-room operations and foodservice eating spaces also deserve more attention: design, set-up, service, and communication strategies can all nudge consumers towards healthier, more sustainable choices, as behavioral economics has demonstrated.
1. Think Produce First! Focus on fruits and vegetables first—with great diversity across all day and meal parts—knowing that your customers aren’t eating nearly enough, when instead they should be filling half their plates with produce. Menus should feature green leafy vegetables and a mix of colorful fruits and vegetables daily. Fruit is best consumed whole or cut, fresh and in season, or frozen and preserved without added sugar or salt. Fruit juice often contains healthy micronutrients, but it also packs a large amount of fast-metabolizing sugar and should be limited to one serving of one small glass per day. Dried, unsweetened fruit is also a good choice; though it contains natural sugars, it also contains fiber, which can mitigate negative blood sugar response.

2. Whole, Intact Grains: The New Norm. Menus should offer and highlight slow-metabolizing, whole and intact grains, such as 100 percent whole-grain bread, brown rice, and whole grain/ higher protein pasta. Use white flour and other refined carbohydrates sparingly, as their impacts on health are similar to those of sugar and saturated fats. Ideally, new menu items should emphasize whole, intact, or cut—not milled—cooked grains, from wheat berries and oats to quinoa, which can be used creatively in salads, soups, side dishes, breakfast dishes, and more. In baking, blend milled whole grains with intact or cut whole grains to achieve good, functional results.

3. Potatoes: New Directions for Sides. Potatoes have rapid metabolizing impacts on blood sugar, which is of special concern as they are regularly used as a starch to fill plates. Chefs can limit their use of potatoes by combining small portions of them with other, non-starchy vegetables or featuring them as an occasional vegetable, as they do green beans, broccoli, carrots, and peppers. Chefs should also consider healthier alternatives including sweet potatoes, which are rich in beta-carotenes and other vitamins, and healthier side dishes that highlight fruits, vegetables, whole grains, legumes, and nuts.

4. Nuts and Legumes to the Center of the Plate. Nuts and legumes are full of flavor, contain plant protein, and are associated with increased satiety. Nuts contain beneficial fats, while legume crops contain fiber and slowly metabolized carbohydrate. Legumes also are renowned for helping to replace nitrogen in the soil and produce impressive quantities of protein per acre. Nuts (including nut butters, flours and milks) and legumes (including soy foods and legume flours) are an excellent replacement for animal protein. They also are a marketable way to serve and leverage smaller amounts of meat and animal proteins.

5. Choose Healthier Oils, Avoid Trans Fats. Using plant oils and other ingredients that contain unsaturated fats, such as canola, soy, peanut, and olive oils, as well as fish, nuts, seeds, avocados, and whole grains, are a simple way to create healthier menus. Scientific research shows that reducing saturated fat is good for health if replaced with “good” fats, especially polyunsaturated fats, instead of refined carbohydrates such as white bread, white rice, mashed potatoes, and sugary drinks. High-flavor fats and oils that contain more saturated fat—including butter, cream, lard, and coconut oil—can have a place in healthy cooking if used only occasionally in limited, strategic applications. Now labeled a “metabolic poison” by leading medical scientists, trans fats from partially hydrogenated vegetable oils have no place in foodservice kitchens.

6. Palatability and Health: End the Low-fat Myth. Current nutrition science reverses the mistaken belief that because beneficial fats are high in calories, we need to limit all fat. Moderate and even high levels of beneficial fats in the diet—from (most) non-hydrogenated plant oils, nuts, nut butters, avocados, and fish—are associated with optimal nutrition and healthy weight. Beneficial fats paired with an abundance of vegetables, whole grains, legumes, and nuts, can give our diets a baseline of slow-metabolizing, healthy foods, which also are associated with increased satiety. With its potential to deliver or leverage high-impacts flavors, a more liberal usage of healthy fats might represent the difference between consumers liking—or not liking—healthy and more environmentally friendly foods. Even small, occasional servings of deep-fried foods and condiments are appropriate offerings if operators use healthy, non-hydrogenated oils, and avoid potatoes, breadcrumb, and other refined carbohydrates in favor of fish, vegetables, legumes and legume flour. Scientific research confirms that the vast majority of people reporting better adherence to a moderate or higher fat, healthy diet.

7. More Kinds of Seafood, More Often. Seafood is an important part of a healthy diet, and most Americans don’t eat the recommended one to two servings a week of fatty fish, which contain higher levels of health-promoting omega-3s. Moreover, the focus on just a few species is emptying parts of the oceans of popular species such as cod and tuna and now also fish like menhaden, which are a key ingredient in feed for some types of farm-raised fish. Scientific studies have found that the benefits of eating seafood greatly outweigh the risks and that removing or reducing seafood from the diet can have negative effects on human health. So serving more seafood more often from responsibly managed sources is the priority. Chefs can have a positive impact on the environment and public health by expanding their understanding of how to source and use a greater variety of responsibly managed and underutilized wild-caught and farm-raised fish and shellfish.

8. Milk, Cheese and Yogurt: An Evolving, Supporting Role. While there is tremendous innovation underway to improve dairy production and its impact on the environment, the nutrition science on dairy is still unsettled and evolving. Currently it seems prudent for individuals to limit milk/dairy to one to two servings per day. Chefs should leverage the flavor of cheese (high in saturated fat and sodium) in smaller amounts and minimize the use of butter. Yogurt (without added sugar) is a good choice for professional kitchens, as its consumption is associated with healthy weight.

9. Poultry and Eggs: Good Choices, In Moderation. Chicken and other poultry in moderation are a good choice of healthier protein with a far lower environmental footprint than red meat. Chefs should avoid or minimize the use of processed poultry products, which are high in sodium often as a result of sodium pumps and bringing. Eggs in moderation—on average of one per person is recommended for most people. Creative menu items that mix whole eggs and egg whites for omelets and eggs with vegetables are ideal.

10. Red Meat: Smaller Portions, Less Frequently. Nutrition scientists recommend that red meat—beef, pork, and lamb—should be consumed only occasionally and in small amounts, if at all. Current guidance is to consume a maximum average of two small servings, a few ounces in aggregate, per person, per week. Red meats carry a heavy environmental footprint from greenhouse-gas emissions to the fertilizers, land, and water needed to produce animal feed for intensive livestock production. The rampant use of antibiotics in livestock production also continues to pose a major health risk. Innovative, alternative animal agriculture can partially mitigate some of these impacts, but chefs and menus developers can further these trends by increasingly featuring red meat in a smaller, supporting role to healthier plant-based choices, and thinking of meat as a condiment. From an environmental perspective, pork is the better choice among red meats (though no better from a nutritional perspective). Saturated fat is not the only health concern with red-meat consumption. Chefs should strive to limit bacon and other cured meats, which are associated with even higher incidence of chronic disease than uncured red meats. Of course, many diners choose to splurge on red meat when they eat out, and there will always be an appropriate place for “special-occasion,” meat-centered dishes. But chefs can help to shift eating patterns by building a sense of theater and value in menu concepts and language that don’t rely on a starring role for animal protein. For example, they might offer delicious meat/vegetable and meat/legume blends or smaller, tasting portions of red meat as part of vegetable-rich, small plate formats.

11. Added Sugar: Strategies Beyond Current, Unhealthy Excess. Consumers crave sugar, and the foodservice industry responds by selling processed foods and sweets that are loaded with it. But sugar’s role in spiking blood-sugar levels and increasing rates of Type 2 diabetes and other chronic diseases mean that professional kitchens should substantially restrict its use. Various strategies include: choosing processed foods with lower or no added sugars; favoring healthy oils over sugar in products such as salad dressings; featuring smaller portions of dessert augmented with fruit; and substituting whole, cut, and dried fruit for sugar in recipes. There is nothing wrong with an occasional dessert; but pastry chefs and dessert specialists need to take up the challenge to create desserts centered on whole grains, nuts, dark chocolate, coffee, fruit, healthy oils, yogurt, small
amounts of other low-fat dairy and eggs, and, as appropriate, small amounts of beverage alcohol—with the addition of only small to minimal amounts of sugar and refined carbohydrates.

A drastic reduction in sugary beverages represents one of the biggest opportunities for foodservice operators to help reverse our national obesity and diabetes epidemics. They add no nutritional value and contribute negligible satiety. Yet they are a prime source of extra calories in the diet and a principle contributor to the development of Type 2 diabetes, heart disease, and other chronic conditions. Smaller portion sizes and more infrequent consumption are steps in the right direction. But nowhere in foodservice are we in greater need of creative, “disruptive” innovation to replace contemporary soda and sugary beverage formulations with more healthful options. Diet sodas and other diet beverages, though lower in calories, may reinforce an aggregate preference for sweet flavors, potentially driving down the appeal of vegetables and other healthy foods. They should be consumed in smaller portions less frequently.

13. Cut the Salt: Frontiers of Flavor Discovery.
The foodservice and food manufacturing sectors have long relied on salt to do the heavy lifting to create high flavor impact and customer satisfaction. Single items, such as a sandwich or entrée, might now contain more than 2,500 milligrams of sodium, well above the current maximum recommended intake of 1,500 milligrams to 2,300 milligrams for the entire day. Chefs should focus on a range of other strategies to deliver flavor including: sourcing the best-quality, high-flavor produce; working with spices, herbs, citrus and other aromatics; and employing healthy sauces, seasonings, and other flavor-building techniques from around the world. Many chefs are finding success in focusing their innovation where they have the highest aggregation of sodium (e.g., processed meats, cheese and bread) in a single menu item. Others are making progress in across-the-board incremental 10-20 percent sodium reduction in their preparations. Still others are focusing on collaboration with manufacturing partners to reduce sodium through alternative strategies to create desired flavors and textures.

Water is the best choice to serve your customers, either plain or with the addition of cut up whole fruit, herbs and aromatics, or other natural flavors—and no sugar. Served plain, coffee and tea are calorie-free beverages containing antioxidants, flavonoids, and other biologically active substances that may be good for health. Wine, beer, and other beverage alcohol are a more complicated story of benefits for many with some offsetting risks. Current nutrition guidance is for a maximum of two drinks per day for men, and one drink per day for women. Foodservice operators need to engage their suppliers to innovate in this critical area and provide options made with healthier ingredients. Operators also should diligently research, support, and promote the products of entrepreneurs and emerging brands that are rapidly developing solutions in this challenging area.

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