

PRINCIPLES OF HEALTHY MENU RESEARCH & DEVELOPMENT

The Culinary Institute of America-Harvard School of Public Health
Principles of Healthy Menu Research & Development
SUMMARY

PRINCIPLES OF FOCUS FOR THIS PROGRAM ARE IN GREEN:

1. Think strategically about **flavor** and world cuisines.
2. Focus on **fruits and vegetables** first.
3. Increase use of **healthy plant-based oils**, eliminate *trans* fats, and substantially reduce saturated fats.
4. Increase options for **healthy protein choices**, adding fish, nuts, and legumes.
5. Emphasize **healthy carbohydrates**, increase menu presence of whole grains – especially “intact” whole grains – and increase food and beverage options with no or little added sugars.
6. Reduce **salt and sodium** in food preparation and choose lower sodium manufactured ingredients.
7. Provide a wider range of **calorie and portion-size options**.
8. Leverage **small measures of indulgence** for maximum, creative impact.
9. Share **nutrition information** with customers as appropriate, but emphasize strategies for selling healthier menu options that rely more on the language of flavor and culinary adventure.
10. Engage colleagues and industry partners in a long-term process of discovery to better understand **the art and science of healthy menu R & D**.

Americans face an epidemic of diet-linked adverse health conditions and chronic diseases, from obesity and type 2 diabetes to heart disease and various cancers. The USDA’s Economic Research Service estimates that by adopting healthier diets, Americans could save \$90 billion dollars a year in health care costs.

Long-term studies by the Harvard School of Public Health have concluded that an optimally nutritious diet combined with regular exercise and not smoking can prevent 80 percent of heart disease, 90 percent of type 2 diabetes, 70 percent of stroke and some cancers, as well as substantially reduce the incidence of a host of other chronic diseases and health ailments.

While it is ultimately up to individuals to make good, healthful food choices for themselves and their families, it is vital to our nation's public health that the foodservice industry accelerate current efforts to expand healthy menu choices.

Spending on food prepared away from home now represents approximately 50% of the consumer food dollar, and is likely to increase in the years to come. For millions of Americans, foodservice is no longer what it was years ago—just that special, celebratory dining experience, or that very occasional “grab-and-go” fast-food lunch. In the past, the nutrition impact of foodservice meals was less important because most food was consumed in the home.

Today more than ever, many Americans are looking to their favorite restaurants and foodservice outlets for food choices that are at once healthy and delicious.

It is incumbent on our nation's chefs and foodservice menu development teams to embrace opportunities to create a new generation of healthy, appealing, everyday foods while honoring the historical role of our industry to provide special-occasion foods paired with memorable hospitality.

Foodservice operators and menu R & D teams need to find the right balance—their own balance—between *reacting to* customers' past and current expressed interests and *anticipating* the direction of accelerating trends and mega-issues such as diet-linked chronic diseases, and the likely impacts that such issues will surely have on future business. At a minimum, in responding to our nation's diet and disease challenges, no operator wants to repeat the many failed attempts of years past to introduce healthier menu items.

In the end, successful healthy menu innovation is about increasing, not decreasing, customer choice. Even here, though, the addition of new, healthier choices must attract a sufficiently large following for these directions to be financially sustainable. Fortunately for our industry, these health imperatives coincide with an unprecedented consumer interest in new flavor horizons and new dining experiences—creating a more favorable environment for menu innovation.

These **Principles of Healthy Menu Research & Development**, developed in collaboration with leading nutrition researchers at the Harvard School of Public Health's Department of Nutrition and with input from the 2005 U.S. Dietary Guidelines for Americans, are designed to stimulate discussion, spur ideation and innovation, and help support a more health-oriented foodservice menu research and development process.

Wherever possible, we have used simple, direct language supported by examples to convey information and concepts in developing these guidelines. Our customers order foods and menu choices—not nutrients, not grams, not percentages. The sooner we take the language of nutrition science and translate it into clear and meaningful guidelines and descriptions that foodservice industry professionals and our customers easily grasp, the greater our progress will be.

It is our hope that by adopting these **Principles of Healthy Menu Research & Development**, we as an industry can more quickly and effectively deliver on the promise of

great-tasting, healthy food that delights our customers and secures the financial success of operators across a broad range of sectors.

Principles of Healthy Menu Research and Development

- 1. Think strategically about flavor, with an emphasis on leveraging long-term flavor trends, the public's growing interest in world cuisines, and their discovery of "culinary adventure" in order to broaden options and approaches to healthier menu development.**

Look to the healthiest elements of Mediterranean, Latin, Asian, and other world culinary traditions for inspiration to support successful, flavor-driven menu innovation. Given customer resistance to tampering with known menu favorites to improve their healthfulness, the introduction of new items inspired by the best of world cuisines rich in fruits, vegetables, whole grains, nuts and legumes, and healthy plant oils may prove to be more successful.

Traditional cultures around the world, including those in many parts of the Mediterranean, Latin America, Asia, and Africa have long had dietary patterns that embrace both celebratory foods and feasting for special occasions, and everyday cooking that was invariably largely plant-based. It is these global traditions of everyday cooking that hold tremendous promise for healthy menu R & D. These latter traditions are mostly found in home cooking, and market or "street food" traditions around the world, and are often underrepresented in restaurant traditions (although they are eminently adaptable in many cases to contemporary American foodservice menus).

The potential health-promoting values of any traditional diets or foods must be evaluated in light of current scientific nutrition research. Be cautioned as well that many of these world food traditions that one finds in the United States today have become Americanized and, as a result, are less healthy. In pursuing world flavors as an inspiration for healthy menu R & D, always begin by going back to the original, traditional cultures to benchmark "gold standards."

- 2. Focus on fruits and vegetables first – in a full range of colors and types and in applications across all day and menu parts – knowing that your customers, on average, need to double their consumption of produce to promote good health.**

Recognize that current interest in salads is merely scratching the surface of healthy world salad traditions that can be looked to for inspiration.

Envision a new generation of entrée ideas that bring vegetables and fruits to a starring role at the center of the plate, prepared with a range of other healthy ingredients – from unsaturated plant oils to nuts, legumes, whole grains, and small amounts of fish, poultry, eggs, low-fat dairy, and lean meats.

Consider other variations of produce-focused entrées that use sparing amounts of either fattier cuts of meat, full-fat dairy, or refined carbohydrates effectively as a condiment. These integrated approaches to plate design – often found in food cultures from Asia

and the Mediterranean to Latin America – can complement other parts of the menu where a single, large piece of protein is accompanied by separate sides of vegetables and grains.

Most important, menu developers should know that if a diverse mix of produce plays a much greater role in their operations, many of the healthy menu innovation challenges we face will be automatically resolved, as a result of what produce both adds and displaces. That is why it is so vital to make doubling produce usage a leading nutrition goal of the foodservice industry.

3. Highlight the increased use of healthy plant-based oils, eliminate trans fats, and substantially reduce saturated fats.

Now labeled a “metabolic poison” by leading medical scientists, trans fats (from partially hydrogenated vegetable oils) ultimately have no place in foodservice kitchens. Operators, manufacturers, and leaders in North American agriculture need to collaborate to replace these with healthy, unsaturated fats as quickly as possible.

Understand that scientists consider trans fats to be much worse for human health than saturated fats, with public health experts comparing the need to remove trans fats from the food supply with the imperative, years ago, to get lead out of paint.

Educate your customers that “low fat” is not the goal in healthy menu choices, but rather “low saturated fat/zero trans fat.” Plant oils and other foods high in healthy, unsaturated fats – from canola, soy, peanut, and olive oils to fish, nuts, seeds, avocados, and whole grains – contribute positively to the health profile of a given menu mix.

Understand also that your customers are being urged by medical experts to consume one or more good sources of omega-3 fatty acids every day, which for menu developers could include fish, walnuts, flax seeds (ground and raw), and/or non-hydrogenated soybean oil or canola oil.

Many nutrition researchers consider a recommendation to favor good fats – and stay away from bad fats – as second only to weight control on a list of healthy nutritional strategies.

4. Increase options for healthy protein choices, adding fish, nuts, and legumes if underrepresented on the menu.

For special celebratory occasions, many consider a “fully loaded” bacon double cheeseburger; an oversized plate of smokey, barbecued ribs; a perfectly grilled, well-marbled rib-eye steak; or a triple-cheese, extra-large pizza to be difficult to beat. Such dishes, at their best, have earned legions of loyal customers for operators large and small, and deserve to be celebrated and preserved as menu choices.

But unless we want to ignore what nutrition science is advising us about diet and health links, we cannot eat these foods every day.

Menu developers need to accelerate their embrace of the wider use of lean cuts and smaller portions of meat, and explore the increased use of healthy fish and poultry entrées as well as the potential of plant-based proteins throughout the menu. Operators need to look for opportunities to replace whole milk, butter, cream, and other high-fat dairy items with low-fat/non-fat dairy and other healthier alternatives. If used in small amounts, richly flavored full-fat cheeses and other dairy products can be an option in healthy menu development.

Fish, nuts, and legumes and other sources of plant proteins not only avoid the negative health impacts of other protein choices high in saturated fat, they often contribute in other ways to the health profile of a given dish. In addition to the benefits of healthy fats in fish, nuts, and legumes (including soy milk, tofu, and other soy products), and whole grains, plant-based protein sources are rich in phytochemicals.

Nuts deserve special attention as an underutilized protein source, as the Food and Drug Administration (FDA) now permits this health claim on food labels: “Eating 1.5 ounces per day of most nuts as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease.”

Eggs, which recently have regained favor with nutrition scientists, can be used in moderation. Just remember to pair them with such healthy ingredients as whole grains, low-fat dairy, vegetables, nuts, legumes, and healthy fats.

Finally, additional menu options that feature plant protein, paired with the high-flavor strategies of various world cuisines, have the potential to contribute to operator costs savings that can offset other healthy initiatives that might have negative cost impacts.

5. Emphasize healthy carbohydrates, increase menu presence of whole grains – especially “intact” whole grains – and increase food and beverage options with no or little added sugars and other “empty-calorie” sweeteners.

Wherever possible, include whole-grain options with all bread offerings – from breakfast breads to sandwich breads to dinner bread baskets and pizzas and pastas. Experiment with a range of percentages of whole grains, favoring applications with 100% whole grain, but knowing that 50% or 75% whole grain is much better than none or a lower percentage.

Seek ways to highlight whole grains, from toasting and complementary flavor pairings to seductive menu language that make these items irresistible to your customers (e.g., a toasted multi-grain hamburger bun scented with pale ale and caramelized onions, anyone?).

Again with breads, experiment with the lighter-tasting white whole wheat as an alternative to the more standard red wheat. Look to dried fruit and dried fruit pastes, nuts and nut butters, seeds, vegetables, and healthy oils to add moisture and appeal to whole-grain breads.

When serving potatoes, offer options that mix them in smaller amounts with a range of vegetables and other healthy ingredients. Consider offering at least one or two whole-grain pasta dishes on your menu, paired with healthy sauce flavors that complement the whole grains. When preparing regular pasta, cook it “al dente” (versus overcooked and mushy) which helps to prevent unhealthy spikes in blood sugar as the pasta is digested.

Explore legume and nut flours (from chickpea and lentil to peanut and almond) for healthier crackers, breads and flatbreads, and pastas.

At the same time you work to boost the use of healthier flours on menus, also focus on opportunities to include even-better-for-you “intact” (unprocessed or minimally processed) whole grains. Offer brown rice whenever white rice is on the menu. Experiment with mixing white rice with brown and other whole-grain rices, and in the style of pilaf traditions, with legumes, nuts, dried fruit, unsaturated fats, and other healthy ingredients.

Explore a range of other whole grains – from bulgur to quinoa, barley, spelt, kamut, and more – and the world cuisine flavoring traditions that make these grains exciting and seductive to diners in the regions of the world where they are consumed.

Recognize that public health experts warn that sodas and other sugar-sweetened beverages are a major source of empty calories in American diets, and contribute importantly to weight problems and an increased risk of diabetes.

As a result, always offer a range of beverages with little or no sugar or other “empty-calorie” sweeteners. Experiment with healthier, high-margin beverages that pair water with a splash of fresh fruit or vegetable juice and/or other aromatics. Favor whole fruit over fruit juice.

Consider dessert and pastry menu development that focuses on fresh, low-sugar processed and dried fruit; nuts and nut flours; whole grains; unsaturated plant oils; and low- and non-fat dairy. Utilize as little added sugar or other “empty-calorie” sweeteners and refined carbohydrates as possible without compromising flavor. Always include at least one healthy dessert option

6. Look for opportunities to reduce salt and sodium in food preparation.

Our industry has long relied on salt to do a lot of the “heavy lifting” to create high flavor impact and customer satisfaction.

Focus on a range of other strategies to deliver flavor, from sourcing the best-quality, high-flavor produce you can find to working with spices, herbs, and other aromatics and a host of healthy sauce, seasoning, and other flavor-building culinary techniques and ideas from various world cuisines.

7. **Provide a wider range of calorie/portion options, and consider menu concepts that change the value proposition for customers from quantity to a focus on quality and culinary differentiation.**

Understand that medical research now indicates that next to not smoking, maintaining a healthy weight is the most important predictor of future health. The foodservice industry has an enormous opportunity to meaningfully contribute to the achievement of healthier weight patterns among our customers.

Focus on minimizing “empty calories” – especially those from sugar, other calorie-laden sweeteners, and refined carbohydrates in much of your menus.

Understand that healthy fats, *per se*, do not make your customers fat – only excess calories over energy expenditure (over time) contribute to weight gain. Do not be distracted by a high percentage of healthy fats in a given menu item such as a vegetable salad or cooked vegetable dish where total fat is even 80% of calories, so long as saturated fat is low to very low. A modest amount of healthy fat may be key in gaining acceptance for a range of healthy menu options among customers. Many operators have created non-fat items high in sugars and other refined carbohydrates under the mistaken notion that they were doing their customers a favor.

Offer a wide range of choices in your menu – from reduced calorie items to half/ smaller portions of regular items to sauces on the side – that accommodates a considerable range of calorie needs and interests on the part of your customers.

Explore menu category innovation that allows your customers to eat family-style or in a “small plates” or tasting format, thereby increasing their options to have more limited (versus “all or nothing”) amounts of favorite, less-healthy foods – and a greater variety of more healthful foods – without being locked into an “appetizers-entrée-dessert” menu decision-making track.

Depending on the profile of your customer, consider highlighting quality of ingredients over quantity of portion size (e.g., less of a higher-quality, full-flavored cheese) to deliver the same or higher customer satisfaction and operating margins.

Finally, recognize that as an operator, as you work to add healthier options to menus, aiming for the lowest possible calories in your entrées should not be the goal. For most people, a 300- to 400-calorie meal will not be satisfying and they will soon be out scouting for something else to eat which likely won’t be as healthy. Often, whole categories of options labeled as “heart-healthy” on menus are not really enough to be a meal.

The goal for operators in setting portion sizes should be moderation – not supersizing, but also not undersizing. Offering a range of choices in portion sizes, such as through “small plate” concepts and menu formats that emphasize flexibility (e.g., two size options for some or all entrées), will likely yield the best results for customers.

8. Leverage small measures of indulgence for maximum, creative impact, and create new categories of options for healthy menu choices.

Our industry's menus have long pursued a strategy of creating two broad categories: one of "regular" menu items, and the other of items that are altered to meet the health and medical concerns of what was previously considered a minority of diners. The result has often been that diners had to choose between a rich, decadent (and probably delicious) entrée or dessert high in saturated fat and a choice that is 100% stripped of anything that might ever offend a nutrition scientist.

To win a broader following for healthy flavors, menu developers need to develop a robust third, or "middle," way that uses small to very small amounts of juicy grilled steak, rich creamery butter, aged full-flavored cheeses, luscious pastry, and other such foods to flavor or accompany larger amounts of fruits, vegetables, and whole grains that need to form the bulk of our diets for optimal health.

In practice, this might mean that all vegetable side dishes, for instance, are cooked in a healthy plant oil, but that the fruit crisp on the dessert menu features fresh and dried fruit, mostly whole grains with some refined grains, and mostly plant oils with a supporting role for butter only in quantities necessary to achieve the desired threshold of customer satisfaction. Or in what some have termed the "pastry flip," switch the roles for what used to be the rich, decadent dessert – e.g., double fudge cheesecake – accompanied by a modest fruit garnish, so that the fruit is now the star and the cheesecake is the accompanying "garnish."

In short, instead of a "regular" and "unleaded" approach to menu design, we need a fuller range of choices for customers who are looking to make a corresponding range of different nutrition decisions across a broad spectrum of meals and snacks.

9. Share nutrition information with customers as appropriate, but emphasize strategies for selling healthier menu options that rely more on the language of flavor and culinary adventure.

Operators need to find their own best approach to disclosing nutrition information for the benefit of their customers. But menu developers (and policy makers) should understand that designating items on menus as "healthy items" or including nutrition information on menus next to specific menu items often backfires, as customers rightly or wrongly assume that those promoted as the healthiest of these offerings will not meet their taste expectations.

While by no means discouraging full disclosure of nutritional information, increasing experience in our industry suggests that a strategy of "stealth health" – presenting fabulous, full-flavored healthy food not labeled as being healthy – will yield better results with customers than more "healthy menu" segmentation, health symbols, and the like.

10. **Engage colleagues and industry partners in a long-term process of discovery to better understand the art and science of healthy menu R & D, and reimagine the operational designs, technologies, human resource strategies, and marketing innovation necessary to successfully sell and deliver these flavors to customers.**

Chefs, menu developers, and other foodservice leaders need to have a robust, two-tiered focus to stay ahead of the accelerating health and wellness juggernaut that is transforming our industry. Short-term menu changes are essential, and many can be implemented quickly. But longer term, the needs are more varied, complex, and challenging.

Just in the one area of boosting produce consumption, the foodservice industry has an enormous opportunity to work with the produce industry to develop a wide range of strategies, from what to grow (in order to maximize flavor), when and how to harvest/transport (again, to maximize flavor), and how to add value to the processing of produce to facilitate more innovation, especially given the often tight operational constraints of multi-unit operations.

Manufacturers/suppliers will need to grasp the key role that world flavor traditions, ingredients, and flavor dynamics can play in broadening healthy menu development success – and step up to the plate with better research, better sourcing, more authenticity, and a long-term commitment to support new directions in operator education.

We will need a new generation of restaurant kitchen design – designs that are friendlier to menus rich in fruits, vegetables, and whole grains; that permit a varied range of cooking techniques; and that support healthier approaches to delivering high-impact flavor.

Foodservice operators and their marketing and public relations executives need to embrace the long-term reeducation of their customers, assuring and inspiring them with explicit and/or implicit messages that healthy menu choices can be delicious.

By supporting a strategy that evokes the seductive images of world flavors and culinary adventure, marketing professionals can bring customers along in these healthier menu directions with less of a need to focus on nutrients or medical issues. This must be a long-term commitment that doesn't get distracted by the latest diet book, or by outdated or incorrect nutrition tenets such as "low-fat" (versus good/bad fats) and "no-carb" (versus good/bad carbs).

Through this kind of sustained marketing strategy that focuses on flavor and consumer interest in new, entertaining dining experiences and by employing these principles of healthy menu research and development, the foodservice industry can enjoy a bright business climate in which health, taste, customer satisfaction, and operator profitability are all mutually supported and fully attainable.