



EXECUTIVE SUMMARY

MENUS CHANGE[®]

The Business of Healthy, Sustainable, Delicious Food Choices

2019 ANNUAL REPORT



HARVARD
T.H. CHAN

SCHOOL OF PUBLIC HEALTH
Department of Nutrition



CONTENTS

I. Menus of Change in 2019	3
II. Executive Summary	4
III. State of the Plate and Score Key	6
IV. Dashboard	7
V. Our Vision	8
VI. GPS: A Model for Change	10
VII. Defining Plant-Forward: Guidance for Our Industry	11
VIII. Principles of Healthy, Sustainable Menus	13

To read the full 2019 Menus of Change® Annual Report, please visit [menusofchange.org](https://www.menusofchange.org)

The Menus of Change® (MOC) Annual Report and Annual Leadership Summit are co-presented by The Culinary Institute of America (CIA) and Harvard T.H. Chan School of Public Health, Department of Nutrition. The Menus of Change Scientific and Technical Advisory Council, composed of leading nutrition, environmental, and other scientists and scholars ([menusofchange.org/advisory-councils/stac](https://www.menusofchange.org/advisory-councils/stac)), together with Harvard Chan School and the CIA, are solely responsible for the nutrition and environmental guidance of the report and conference. The Menus of Change Business Leadership Council ([menusofchange.org/advisory-councils/sblc](https://www.menusofchange.org/advisory-councils/sblc)) contributes insights to parts of the report and conference designed to help translate this guidance into industry change; highlights case studies in innovation (e.g., menu research and development, product sourcing, supply chain management); and builds industry participation in supporting healthier, more sustainable menus. Project sponsors and other commercial interests are not permitted to influence the editorial independence of the Menus of Change initiative.

I. MENUS OF CHANGE IN 2019

Welcome to the 7th *Menus of Change*[®] Annual Report. This report provides you and your colleagues with briefings on areas where your decisions about menus, recipes, and ingredient selection will have the greatest impact on our health, our planet, and our businesses. It also documents a remarkable, positive change resulting from the work of so many chefs and foodservice industry professionals to improve what we eat, including focusing more creativity towards developing new and delicious plant-forward choices for the dining public.

The first six years of the Menus of Change initiative have passed quickly, as we have worked to engage, inform, and guide the culinary profession and foodservice industry in the business of serving healthy, sustainable, delicious food. The initiative, a partnership of The Culinary Institute of America and Harvard T.H. Chan School of Public Health, Department of Nutrition, does the essential, difficult, and unprecedented work of integrating the latest findings from both nutrition and environmental science into a single set of recommendations to help foodservice and culinary professionals make better choices. Chief among these is the obligation to move away from the longstanding emphasis of red meat and other animal proteins on our plates.

Since 2013, this report and initiative have helped the industry rethink the role of protein on our menus. A few years, flips, and blends later—and with the involvement of several culinary and business leaders—the efforts of the many chefs and foodservice operators who have taken up the goals of Menus of Change are now beginning to reshape the American diet.

In less than a decade, the culinary profession and the foodservice industry have rallied around a new vision of plant-forward dining.

It is now a focus of menu development and culinary innovation in restaurants and other foodservice operations of all sizes, formats, and price points, from fine dining to student dining and from full service to quick service. In 2019, in further efforts to move this vision ahead, the CIA launched the Global Plant-Forward Culinary Summit, which focuses on culinary strategies around plant-forward cooking and takes place in Napa each spring.

This annual report is a core part of the Menus of Change mission. It seeks to advance a long-term, practical vision that integrates optimal nutrition, environmental stewardship and restoration, and social responsibility within the foodservice industry. It includes a guide to the key issues that the foodservice community faces, as well as recommendations for improving business performance. The report's Dashboard shows the progress the industry has made, with indicators that can help businesses evaluate their own efforts in the areas that matter most. For culinary professionals, R&D teams, and senior-level strategic marketing managers, a comprehensive set of principles guides menu development and design.

Overall, as the 2019 Menus of Change Dashboard shows, restaurant and foodservice leaders are making steady progress in their efforts to offer Americans better food choices, while also wrestling with increasingly complex risks from climate change, water scarcity, lack of visibility into supply chains, and other environmental factors that make our supply chain more brittle and less predictable. Our industry has shown great innovation in accomplishing this shift, and, importantly, consumers have shown great appetite for such innovation.

The CIA and Harvard Chan School invite businesses to use this report to measure their progress and to navigate new and complex challenges. Not all culinary professionals and foodservice companies will take the same path forward. But more and more have a similar goal: to be successful in the businesses of serving healthy, sustainable, delicious food.

Onward!





II. EXECUTIVE SUMMARY: A TASTE OF WHAT'S AHEAD

Originally intended as a B2B term, “plant-forward” is an umbrella term that includes vegetarian and vegan approaches just as much as it does flexitarian or plant-rich omnivore in order to encourage broad adoption by foodservice operators and culinary professionals. The term has also spread to consumer media and, as you’ll read in this report and no doubt have witnessed for yourselves, “vegan,” “vegetarian,” “plant-based,” and “plant-forward” have all moved from the fringes of dining culture to the mainstream over the last two years, hitting nearly every major trend list in the process. Of course, it is important that chefs and operators not think of vegetable-centric, plant-forward menus as a hot trend, but rather, as a new normal. We must all do our part to ensure that plant-forward has staying power.

Each of the 24 Menus of Change Principles of Healthy, Sustainable Menu was designed with this staying power in mind, focusing on what should be the new evergreens driving our menus. Even as we add more produce on our plates, we must continue to lower our use of salt and added sugar, to serve more kinds of seafood more often, and to reduce portions, for example. And if we’ve learned anything about what it looks like to advance plant-forward menus on the ground, it’s that the principle “Lead with Menu Messaging Around Flavor” is perhaps more relevant than ever before. So too is “Leverage Globally Inspired, Plant-Forward Culinary Strategies.” So remember: even the best highways don’t cover the entire map.

Against this background, the EAT Foundation, with support from the Wellcome Trust, convened an international group of experts in nutrition, agriculture, environment, and policy to identify a pathway to feeding 10 billion people in 2050 a diet that is both healthy and sustainable. The subsequent report, published in the *Lancet* in January 2019, outlines a healthy reference diet that can be described as a *plant-forward* or *flexitarian diet*, and includes generous amounts of whole grains, fruits, and vegetables. View the full *2019 Menus of Change Annual Report* online for more on the EAT-*Lancet* report and its implications for healthy, sustainable diets. Significantly, the work of this expert commission for the first time provides quantitative references to complement the qualitative principles that the Menus of Change initiative has championed in the past seven years. It also defines planetary boundaries for a sustainable food system, such as limits for greenhouse gas production, land use, and nitrogen and phosphorus fertilizer application that underscore the urgency of our work.

The centerpiece of the Menus of Change report is a concise analysis of 12 issues at the intersection of public health, the environment, and the business of food. These issue briefs synthesize the latest health and environmental data to provide a clear picture of the industry’s challenges and opportunities, as well as practical next steps for foodservice operations. The report assigns each issue an annual score that rates the industry’s efforts in these critical areas.

If the 2018 dashboard reflected pivotal progress in nearly all indicators, the 2019 report acknowledges that change can require sustained effort before seeing a large payoff. Scores for the majority of the essays in the report held steadfast in the past year, albeit with progress noted for fruit and vegetable consumption. Additionally, while the score for protein consumption did not change, the vast amount of attention, innovation, and investment happening in this sector is cause for hope that consequential shifts are on the horizon. Similarly, increased attention on animal welfare and antibiotics issues makes it likely that we will see continued progress in these arenas in the near future.

1. Fruit and Vegetable Consumption

While consumptive data does not yet show an increase in fruit and vegetable consumption, interest among trend-leading chefs, large non-commercial foodservice operators, and their customers in plant-forward menus—including fruits and vegetables—is surging. On the supply side, it is feasible to increase U.S. fruit and vegetable production if the demand is there and the price is adequate. Vegetarian, vegan, and plant-forward dishes generally have become more common across all food service sectors in response to consumer demand. With younger generations accelerating this trend, we hope to see measurable increased consumption data around fruits and vegetables in future years, indicating widespread change in American food choices.

2. Protein

Americans continue to consume more protein than needed, from all types of sources. Additionally, despite a long-term downward trend in meat consumption, data indicates that in recent years, Americans are increasing their intake of both red meat and poultry. This is true even as new studies add to existing evidence that shifts in eating habits toward more plant-based proteins, fruits, and vegetables can reduce the risk of certain chronic diseases, greenhouse gas emissions, and the burden on water and energy resources. Amidst this landscape, plant-based and alternative proteins have become increasingly accessible and adopted into a multitude of food service segments; *Fast Company* went so far as to predict that “2019 will be the year alt-meat goes mainstream.”

3. Animal Welfare and Agricultural Drug Use

Most of the largest U.S. restaurant, hospitality, and foodservice companies have now met or are well on their way to meeting their commitments to reduce or eliminate antibiotic use in their supply chains in the next few years. Most of these commitments are in the poultry sector, which continues to respond to consumer demand more robustly than the swine and dairy industries, where the ongoing use of low-dose antibiotics for prophylaxis is a problem. However, McDonald’s announcement in early 2019 that it would measure and reduce antibiotics in its beef supply, as well as Bon Appétit Management Company’s update to its antibiotic policy to include its seafood supply portend more changes throughout the industry.



In any industry, in any point in time, change is to be expected. But never before has the pace of change in the foodservice industry been so rapid. Consumer demands for transparency and traceability are becoming more and more granular, and the time for food companies to respond is becoming shorter and shorter. So the outcropping of innovation, from business models to protein sources, and the many rigorous sourcing, menuing, operational, and investor initiatives, are all commendable. And yet, there remain critical areas where the foodservice industry must act much, much faster.

Overall, the industry is moving in the right direction: 11 of 12 issues received a score ranging from three (holding steady) to four (making good progress). Unfortunately, the industry took a step back with regards to climate change and supply chain resiliency and transparency, and the continued lack of substantive action in the industry to address water scarcity has kept that issue stalled at a score of two. All in all, however, momentum is building in our industry to drive greater innovation, investments, and education around health and sustainability imperatives.

METHODOLOGY

The scores were developed based on the expert opinions of the members of the Menus of Change Scientific and Technical Advisory Council, who considered new research findings and trend data as well as innovations and changes in business practices and policies. The information was then reviewed by members of the Menus of Change Business Leadership Council to ensure it reflected new industry initiatives and practices.

STATE OF THE PLATE

How are we doing? Sometimes it's hard to tell. The Menus of Change Dashboard on the next page provides a snapshot of the foodservice industry's progress to improve nutrition, sustainability, and profitability. Its scores on critical issues that affect the foodservice industry are updated annually to show where progress is being made. It also creates a set of standards that are designed to be used by businesses to judge their own efforts on health and sustainability.

Dashboard Score Key

The score assigned to each issue indicates progress or lack thereof in the foodservice industry and/or culinary profession over the last 12 months, as follows:

- 
- 1: SIGNIFICANT PROGRESS
 - 2: GOOD PROGRESS, WITH ROOM FOR MORE
 - 3. NO SIGNIFICANT PROGRESS
 - 4. GETTING BETTER, BUT FAR FROM WHERE IT NEEDS TO BE
 - 5. SIGNIFICANT DECLINE OR REGRESS



ISSUE	SCORES					JUSTIFICATION
	2019	2018	2017	2016	2015	
SUPPLY CHAIN RESILIENCY AND TRANSPARENCY						Food products over the past year showed widespread economic fraud and misrepresentation, and reliance on a complex web of food providers and difficulties in traceability posed strong challenges to the stability and resiliency of the supply chain.
CHANGES IN FOOD INDUSTRY INVESTMENT STANDARDS						As investors increasingly engage with publicly traded companies on sustainability, food and restaurant businesses need to be especially responsive to and aware of a widening, often bundled set of concerns, including human rights policies and risks, plastic waste, and climate change.
LOCAL AND REGIONAL FOOD SYSTEMS						Many operators remain committed to local and regional sourcing of produce and perishables, including for globally inspired dishes. While some chefs forge ahead with innovative and exclusively local concepts with onsite gardens, others still have room for improvement in supporting local and regional farms.
LAND USE AND FARMING PRACTICES						The need for increased crop diversity and regenerative agricultural practices is just starting to gain traction in the foodservice sector, but there continues to be little substantial effort in changing how farms and rangelands are used in the U.S. on a large scale.
ANIMAL WELFARE AND DRUG USE						Antibiotic use in industrial food animal production is declining rapidly in the poultry industry but remains a problem in swine, beef, and dairy production. Consumer and regulatory pressures continue to push operators to reduce inappropriate use of antibiotics and to improve overall animal welfare standards.
DIET QUALITY AND HEALTH						The foodservice industry is increasing its range of healthier plant-forward menu options. Chefs are also driving change in meals for children, in schools and in restaurants, though more work needs to be done in improving nutritional quality of meals and food literacy among children through hands-on cooking.
PORTION SIZE AND CALORIC INTAKE						The calorie menu labeling legislation, now in effect, has encouraged recipe and portion size reformulation, but strategic calorie reduction and a focus on nutrient density, quality, and flavor across all foodservice meals is still needed.
PROTEIN CONSUMPTION AND PRODUCTION						The foodservice industry continues to offer more plant-forward menu options highlighting plant-based protein, with alternative meat products becoming mainstream and lab-grown cultured meats arriving on the horizon.
FRUIT AND VEGETABLE CONSUMPTION AND PRODUCTION						Interest among trend-leading chefs, large non-commercial foodservice operators, and their customers in plant-forward menus—including fruits and vegetables—is surging. With younger generations accelerating this trend, we hope to see measurable increased consumption data around fruits and vegetables in future years.
FISH, SEAFOOD, AND OCEANS						Americans eat most of their fish and seafood away from home but only eat half as much as they should. Transformation of U.S. fisheries makes eating locally also generally more sustainable. Chefs and the restaurant industry can play a lead role in helping Americans eat more fish and do so responsibly.
WATER SUSTAINABILITY						From recipe design to equipment to food sourcing (including a greater emphasis on plant-based ingredients), the foodservice industry has many opportunities to adopt innovative solutions to reduce the water footprint of its menus and within its operations.
CLIMATE CHANGE						The restaurant industry and culinary professionals are driving important trends in plant-forward menu innovation but much more needs to be done more quickly and on a larger scale to set targets and track progress towards reduced GHG emissions within operations and across the entire food supply chain.

OUR VISION



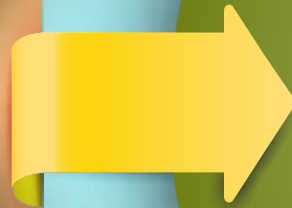
OUR VISION



HEALTHY, SUSTAINABLE,
AND DELICIOUS



BUSINESS MODELS
AND STRATEGIES



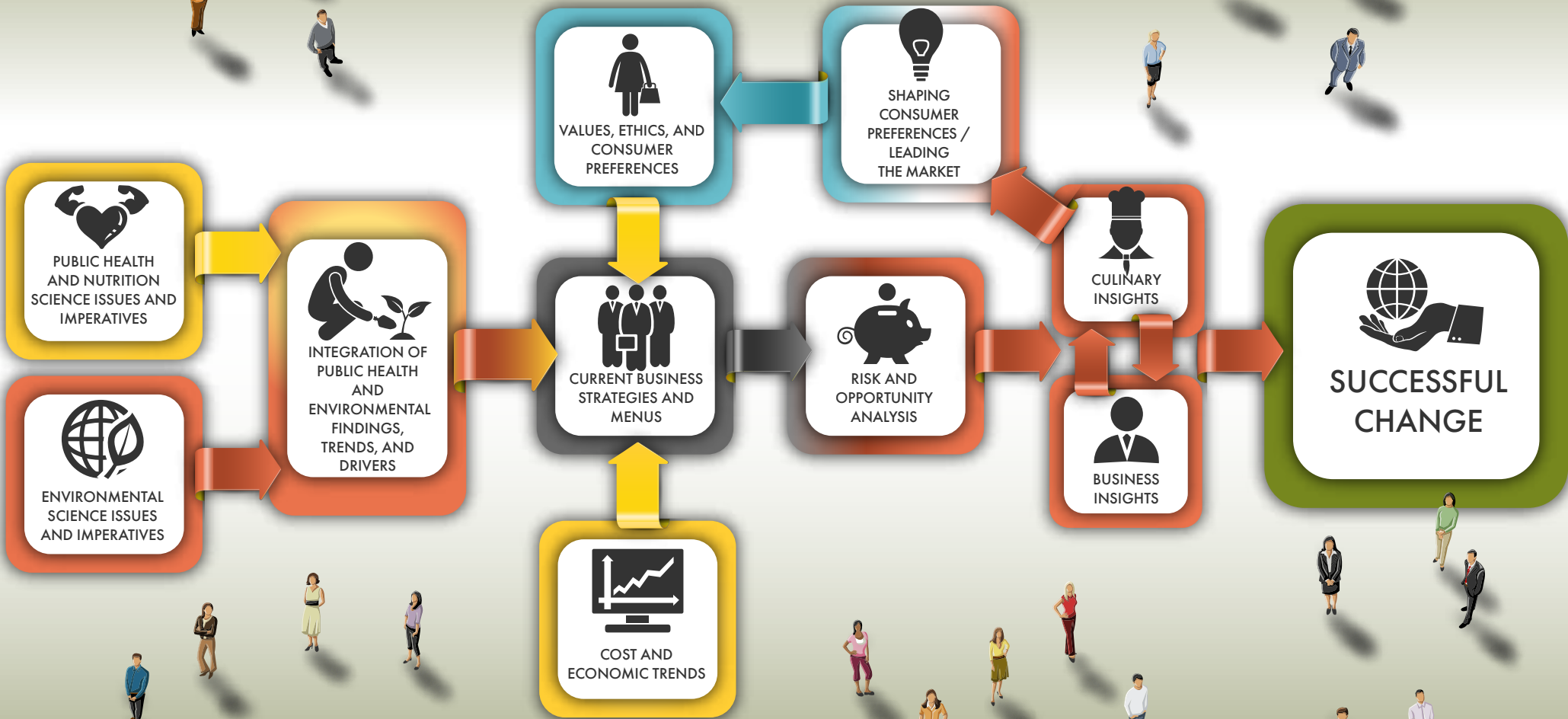
MENUS^{of} CHANGE[®]

The Business of Healthy, Sustainable, Delicious Food Choices

THE FUTURE OF FOOD

INTEGRATED GUIDANCE FOR
BUSINESS AND CULINARY LEADERS

GPS: A MODEL FOR CHANGE





VII. DEFINING PLANT-FORWARD: GUIDANCE FOR OUR INDUSTRY

PLANT-FORWARD

A style of cooking and eating that *emphasizes and celebrates*, but is not limited to, plant-based foods—including fruits and vegetables (produce); whole grains; beans, other legumes (pulses), and soy foods; nuts and seeds; plant oils; and herbs and spices—and that reflects evidence-based principles of health and sustainability.

WHAT'S IN A NAME?

To help you communicate to your industry colleagues, the media, and, as needed, your customers the distinctions between different menu strategies that leverage vegetables, fruits, nuts, legumes, whole grains, and plant proteins in leading roles, we've settled on some naming protocols.

👉 **Plant-Forward:** Please see definition on the right. “Plant-forward” is a big-tent concept for dietary and food system transformation that includes a whole range of healthier, more sustainable culinary approaches—from those that contain poultry, fish, dairy, and/or small amounts of meat to vegetarian and vegan offerings.

👉 **Plant-Based:** Used to refer to ingredients and foods themselves, i.e., fruits and vegetables (produce); whole grains; beans, other legumes (pulses), and soy foods; nuts and seeds; plant oils; and herbs and spices. Different from “plant-forward,” which refers to the style of cooking and eating that emphasizes and celebrates these foods, but is not limited to them.

👉 **Vegetarian:** Dishes or dietary patterns that do not contain meat, poultry, or fish but may, or may not, contain dairy, eggs, and/or honey, and individuals who do not eat meat, poultry, or fish but may, or may not, eat dairy, eggs, and/or honey.

👉 **Vegan:** Dishes or dietary patterns that do not contain any ingredients that came from animals, and individuals who do not eat any ingredients that came from animals.

👉 **Flexitarian:** Dietary patterns that are more focused on plant-sourced foods and much less reliant on meat—often following, for some or many meals, a vegetarian model—but that may occasionally include meat, as well as some poultry, fish, or dairy foods. Such plant-forward menus or food choices might also be called “plant-rich” or “more plant-based.”

HEALTHY, SUSTAINABLE, PLANT-FORWARD FOOD CHOICES

This distilled guidance about the future of our food choices, for individuals and professionals, is an outgrowth of multiple, joint leadership initiatives of The Culinary Institute of America and the Department of Nutrition at Harvard T.H. Chan School of Public Health, including Menus of Change; Healthy Kitchens, Healthy Lives®; Teaching Kitchen Collaborative; and Worlds of Healthy Flavors. It reflects the best current scientific evidence supporting optimal, healthy, and sustainable dietary patterns while addressing vital imperatives to achieve short- and long-term global food security.

Healthy, sustainable, plant-forward food choices—when informed by culinary insight—can transform palates and spur next-generation innovation, as is evident in the success of new menu, restaurant, and retail product concepts thriving in the marketplace. In short, this is a practical, achievable vision for a delicious future. For more information, please read the Principles of Healthy, Sustainable Menus at [menusofchange.org](https://www.menusofchange.org).

Plant-forward is primarily envisioned as a B2B term, not a way to describe dishes on menus. For that, operators are encouraged to lead with descriptors that convey flavor, quality, deliciousness, sense of place, ties with local producers, seasonality, culinary adventure, cultural contexts or heritage, fun, and/or innovation or invention—according to their distinct restaurant or foodservice concept.

HEALTHY, SUSTAINABLE, PLANT-FORWARD FOOD CHOICES

☛ Feature minimally processed, slow-metabolizing plant-based foods: fruits and vegetables (produce); whole grains; beans, other legumes (pulses), and soy foods; nuts and seeds; healthy plant oils; and herbs and spices.

☛ Place animal-based foods in a reduced or optional role, with a special emphasis on decreasing purchases of red meat and minimizing foods sourced from animals raised with the routine, non-therapeutic use of antibiotics. These choices prioritize fish and poultry among animal-based proteins, with dairy options and eggs playing a supporting role (if desired).

☛ Might include vegetarian and vegan choices.

☛ Highlight the value of fresh, seasonal, locally produced foods; minimize sugary beverages and added sugars and sweeteners; and reduce sodium and unhealthy additives.

☛ Emphasize healthy dietary patterns and a rich diversity of whole foods versus an undue focus on specific nutrients and percentages; avoid excess quantities of calories but first ensure calorie quality.

☛ Celebrate cultural diversity, personal needs and preferences, and the unapologetic elevation of deliciousness, including room in our diets for foods of special occasions.

☛ Begin with transparent ingredient sourcing that supports sustainable farming methods and fisheries.

☛ Through food purchasing patterns, encourage innovation and sustainable practices in retail food and restaurant concepts and business models to advance public health, social well-being, and our food system.

To read the full *2019 Menus of Change® Annual Report*, please visit [menusofchange.org](https://www.menusofchange.org)



PRINCIPLES

OF HEALTHY, SUSTAINABLE MENUS



BE TRANSPARENT ABOUT SOURCING AND PREPARATION

BUY *Fresh* AND SEASONAL, LOCAL AND GLOBAL

REWARD BETTER AGRICULTURAL PRACTICES
LEVERAGE GLOBALLY INSPIRED, PLANT-FORWARD CULINARY STRATEGIES

FOCUS ON WHOLE, MINIMALLY PROCESSED FOODS

GROW EVERYDAY OPTIONS, WHILE HONORING SPECIAL OCCASION TRADITIONS

LEAD WITH MENU MESSAGING AROUND FLAVOR

REDUCE PORTIONS, EMPHASIZING CALORIE QUALITY OVER QUANTITY

CELEBRATE CULTURAL DIVERSITY & DISCOVERY

DESIGN HEALTH AND SUSTAINABILITY INTO OPERATIONS AND DINING SPACES



MAKE WHOLE, INTACT GRAINS THE NEW NORM
LIMIT POTATOES

MOVE LEGUMES AND NUTS TO THE CENTER OF THE PLATE

CHOOSE HEALTHIER OILS
GO "GOOD FAT," NOT "LOW FAT"
SERVE MORE KINDS OF SEAFOOD, MORE OFTEN
REIMAGINE DAIRY IN A SUPPORTING ROLE

USE POULTRY AND EGGS IN MODERATION
REDUCE ADDED SUGAR
SERVE LESS RED MEAT, LESS OFTEN

CUT THE SALT: RETHINK FLAVOR DEVELOPMENT FROM THE GROUND UP
SUBSTANTIALLY REDUCE SUGARY BEVERAGES; INNOVATE REPLACEMENTS
DRINK HEALTHY: FROM WATER, COFFEE, AND TEA TO (WITH CAVEATS) BEVERAGE ALCOHOL

8TH ANNUAL LEADERSHIP SUMMIT

JUNE 17-19, 2020

The Culinary Institute of America | Hyde Park, NY

We invite you to read case studies, issue briefs, and other insights
in the full *2019 Menus of Change® Annual Report* at

WWW.MENUSOFCHANGE.ORG

© 2019 The Culinary Institute of America and President and Fellows of Harvard College