The 2016 Food & Health Survey: Consumer Attitudes toward Food Safety, Nutrition & Health marks the 11th edition of an ongoing investigation into the beliefs and behaviors of Americans. The Survey, commissioned by the International Food Information Council (IFIC) Foundation, delves deeply into issues of health and diet, food components, food production, sustainability, and food safety.

For eleven years, the Survey has uncovered important insights and trends for health professionals, government officials, educators, and others who seek to understand and improve the health of Americans. The 2016 Food & Health Survey continues this tradition, with a special focus on understanding the complex array of factors that influence food decisions in the United States.

The 2016 Food & Health Survey was conducted by Greenwald & Associates of Washington, D.C. The Survey was conducted online from March 17-24, 2016. It included 1,003 Americans ages 18-80 and was weighted to represent the demographics of the United States.

The IFIC Foundation's full 2016 Food & Health Survey findings and additional information are available on the Foundation's website: www.foodinsight.org/2016-FHS.
Food Decision 2016

Food has long been part of our national dialogue. Increasing attention to food production and sustainability, along with a growing global population and the rise of social media, has brought an even stronger focus on food and nutrition to the mainstream. Over the past year, the food dialogue has gained momentum, while the factors that impact Americans’ food decisions have increased in number and importance.

The 2016 Food & Health Survey delves into the complex patchwork of influencers and information sources that affect Americans’ food-related decisions. Findings show that health status, gender, income, education, and age may influence Americans’ views on the food they eat.
FOOD INFORMATION LANDSCAPE

Though the information sources and influencers that affect how Americans eat have shifted over the years, some factors remain constant. Taste, price and healthfulness continue to be the biggest drivers of food purchasing decisions for three fourths of the population. The number of Americans citing “sustainability” as a top factor influencing food purchases increased significantly since last year (35% in 2015 to 41% in 2016). We also see that Americans are feeling more strongly about price (68% to 71%) and healthfulness (60% to 64%) in comparison to 2015.

How much of an impact do the following have on your decision to buy foods and beverages?

(% Rating 4 to 5 on 5-point scale, From No Impact to A Great Impact)

![Graph showing the impact of various factors on food purchasing decisions from 2006 to 2016.]

2016 n=1,003
Arrows indicate significant (.95 level) differences vs. 2015.

Americans use several different pieces of packaging information to help them decide what food or beverage to purchase or eat. When presented with a list of packaging information and asked to “select all that apply”, seven in ten (71%) respondents report looking at the expiration date to help make their purchasing decisions. Almost half (49%) look at the Nutrition Facts panel; and almost half (47%) look at the ingredients list. Brand name (27% in 2015 to 45% in 2016) and cooking instructions/preparation time (25% to 37%) make a jump in importance this year versus 2015. Similarly, many Americans also are using nutrition information when eating out at restaurants. More than half (52%) have seen nutrition information on restaurant menus and are using it at least occasionally; only a quarter (23%) have not seen this information at all.

Documentaries, articles, and books about nutrition and the food system have become increasingly common as food conversations have become more prevalent in the mainstream media. Almost four-in-ten (37%) have read or seen something in the last year that examined the food system and/or commonly held beliefs about diet. Findings show an educational and economic divide, as college graduates and those with higher incomes are more likely to have read an article or book or watched a documentary on these topics.
Almost four-in-ten (37%) have read or seen something in the last year that examined the food system and/or commonly held beliefs about diet.

Documentaries, books, and articles that examine the food system and/or commonly held beliefs about diet may also spur behavior change. Out of respondents who said they participated in those activities, more than half report changing their food purchasing behavior (58%) or engaging their friends/family in a conversation about the topic (52%). Women are more likely to change their food purchasing behavior [based on documentaries, books, or articles], while those with kids and/or in better health are more likely to engage their friends and family in a conversation about the topic.

Registered dietitian nutritionists, personal healthcare professionals, and U.S. government agencies are the three most trusted sources for providing accurate information on food safety and types of food to eat. Specifically, trust in the U.S. government went up this year from last year for information on food safety (26% in 2015 to 37% in 2016) and for types of food you should be eating (42% to 52%). This is notable, given that trust in government agencies increased despite this year’s Survey inclusion of new, additional response options being added to the list of trusted sources.

### Groups more likely to trust:

- **Age 50-80, Women**: 70%
- **Age 50-80, Higher income, Higher BMI, Men**: 65%
- **Age 18-49**: 52%
- **Age 18-34, Lower income**: 48%
- **Age 18-34**: 48%

### Types of food you should be eating

- **Registered Dietitian/Nutritionist**: 70%
- **Your personal healthcare professional**: 57%
- **US government agencies**: 52%
- **Health-focused Website, such as WebMD**: 31%
- **A friend or family member**: 19%
- **Fitness professional**: 17%
- **Farmer**: 18%
- **A food expert on TV**: 11%
- **Health, food and nutrition bloggers**: 14%
- **Food company or manufacturer**: 10%

Which one of these sources would you trust the most to provide accurate information about the following issues? (Select up to 3.)

2016 n=1,003
Healthfulness continues to be a top driver in food purchasing decisions. Nevertheless, little research has been done to understand Americans’ definition of “healthy” in relation to food and eating styles. When asked to provide an open-ended definition of a “healthy” food, Americans’ top definition centered on what the food does not include. More than one-third of responses (35%) were a variation on “[a healthy food is a food that] does not contain (or has low levels of) certain [unhealthy] components.” The other top two responses defined healthy foods as “good for you” (18%) or “contains certain [healthful] components” (17%). However, when asked about healthy eating styles in an open-ended question, Americans’ definitions included themes of moderation and variety. The top three definitions were variations on “moderation/ [focus on proper] serving sizes and portions” (26%), “includes certain foods that I define as healthy” (25%), and “the right mix of different foods” (21%). The most popular responses to a close-ended probe on the definition of healthy eating styles were “the right mix of foods” (51%), while “limited or no artificial preservatives or ingredients” (41%) took the second spot and “natural” (37%) was a close third.

When asked to provide an open-ended definition of a “healthy” food, Americans’ top definition centered on what the food does not include.
Overall, Americans continue to think that they are in good health. More than half of Americans (57%) rate themselves in “very good” or “excellent” health, and only about ten percent rate themselves in “fair” or “poor” health. Americans’ rating of their health status correlates with an actual health condition, as Americans who are currently being treated for chronic disease are more likely to rate their health as fair or poor.

As in past years, the vast majority of Americans are trying to maintain or lose weight. More than half of respondents (57%) are trying to lose weight, while nearly a quarter (29%) are trying to maintain. The number of those trying to lose weight increased significantly compared to 2015 (52%), while the number trying to maintain weight has decreased slightly compared to last year (23%). Of those trying to lose weight, more than a third (34%) are trying to lose more than ten pounds.

Many Americans are making an effort to choose more healthful options. More than three-quarters (76%) of Americans report making small changes to achieve an overall healthier diet. Eight-in-ten (81%) have made an effort to eat more fruits and vegetables, with three-in-ten have made this change in the past year. Similarly, most are trying to cut calories by drinking water or low and no-calorie beverages (76%), eating more foods with whole grains (65%), cutting back on foods higher in added sugars (70%), and consuming smaller portions (66%). In fact, the average American is doing at least six of ten healthful eating behaviors. Women, college graduates, those with higher income, and those in better health were more likely to report engaging in the healthy eating behaviors. When probed about their motivations for adopting healthy eating behaviors, most Americans say that they made the changes either to lose weight (63%) or to protect their long term health (62%). Nearly two-in-three (59%) Americans have seen the U.S. Department of Agriculture’s MyPlate graphic, but the number of Americans (37%) who report that they know something about MyPlate dropped slightly compared to last year (42%).
Though three-out-of-five Americans (64%) have not heard of the practice of mindful eating, over half (53%) of respondents are interested in learning more about it. Moreover, many Americans practice healthy eating behaviors that are associated with mindful eating. Four-out-of-five report that they, at least sometimes, stop eating when they have had enough but not too much. Conversely, nearly half of respondents say that they eat at the same time each day, whether or not they are hungry (46%).
Consumption and opinions regarding nutrients such as protein, fats, and carbohydrates have changed over the past year.

**Protein**

Almost two-thirds (64%) of Americans report that they are trying to consume protein, a significant increase from last year (54%). The top three protein sources that Americans reported they are trying to consume were poultry, eggs, and beans, nuts, and seeds.

Of note are consumers’ differing opinions on animal- and plant-based protein sources. When asked about the healthfulness of animal-based protein, 12% of Americans report their opinion has changed to believing animal protein is more healthful, while 15% report their opinion has changed to less healthful. Regarding plant-based protein, more than one-fifth of Americans report their opinion has changed to more healthful and less than one-in-ten report their opinion has changed to less healthful. The top three factors influencing Americans’ opinions on animal- and plant-based protein are scientific studies, media headline or article, and information from family or friends.

When asked why they do not consume more protein than they do, four-in-ten Americans (44%) state the reason is because they already get enough protein in their diet, followed by the belief that protein foods are sometimes more expensive.

“Almost two-thirds (64%) of Americans report that they are trying to consume protein, a significant increase from last year (54%).”
Carbohydrates

While more Americans this year are looking for fiber in foods and beverages (60%), there are also more Americans looking to avoid whole grains (7%), which contain fiber. This decreased interest in whole grains, however, is not consistent in the entire survey as more than three-quarters of Americans still report whole grains as healthy. In addition, one-in-five Americans (20%) say their opinion has changed in the last year to believe whole grains are more healthful and of those, 70% are consuming more whole grains. The top sources that have influenced this group on their opinion on whole grains are friends/family and media headline or article.

Fat

Consumer thoughts and opinions regarding saturated fats have changed in the past year. More than half (51%) of Americans report saturated fats as unhealthy and four-in-ten (44%) report trying to limit or avoid saturated fats. When asked about the healthfulness of saturated fats, more than a quarter (27%) of Americans report their opinion of these has changed to less healthful. Of those, more than three quarters say they now consume less. The top sources influencing this change were listed as media headline or article, reading a scientific study, and an office visit with a healthcare professional. In regards to unsaturated fats, it is clear there is still a disconnect between perceptions of unsaturated fats and the specific types such as Omega 3s and 6s. For example, only about quarter (27%) of Americans rate unsaturated fats as healthy, yet almost 70% rated Omega 3 fatty acids as healthy. In addition, the number of Americans looking for Omega-3 fats and omega-6 fats significantly increased since last year to 37% and 25% respectively.
Low-Calorie Sweeteners

Americans’ opinions regarding low-calorie sweeteners shifted since 2015. In 2016, fewer Americans recognize the benefits of low-calorie sweeteners. Fewer agree that they are an option for people with diabetes, can reduce the caloric content of foods, or can play a role in weight loss or weight management. Additionally, one-third of Americans believe low-calorie sweeteners to be less healthful than they did a year ago, with a media headline or article being the most common source influencing negative shifts in opinion about low-calorie sweeteners.

However, among the one-in-ten (10%) Americans who report they are trying to consume foods and/or beverages containing low-calorie sweeteners, the top reasons given for this were to help reduce the total number of calories consumed, maintain taste preference, and manage an existing health condition. This indicates some recognition of the utility of low-calorie sweeteners in weight management and taste preferences.

<table>
<thead>
<tr>
<th>Thinking about the past year, how has your opinion changed, if at all, about the healthfulness of…</th>
<th>Top 3 factors influencing opinion change*</th>
</tr>
</thead>
<tbody>
<tr>
<td>More healthful</td>
<td>No change</td>
</tr>
<tr>
<td>Natural sugars</td>
<td>17%</td>
</tr>
<tr>
<td>Added sugars</td>
<td>4%</td>
</tr>
<tr>
<td>Low calorie sweeteners</td>
<td>4%</td>
</tr>
</tbody>
</table>
Sugars

Both added and natural sugars are on the minds of Americans. While there appears to be more skepticism regarding sugars, two-thirds (66%) of Americans report that moderate amounts of sugars can be part of an overall healthful diet and almost half (47%) report that it isn’t necessary to completely eliminate sugars from the diet in order to lose weight.

However, six-out-of-ten Americans (61%) state they try to limit or avoid added sugars and one-in-four (25%) state sugars are the most likely calorie source responsible for weight gain. Additionally, more than one-third of (35%) Americans report their opinion of added sugars have shifted to less healthful with the most commonly cited source altering their opinion being a media headline or article.

Regarding natural sugars, nearly one-in-five Americans (17%) report their opinion has changed to more healthful. Similar to added sugars, a media headline or article is also the most commonly cited source that has altered their opinion. However, significantly fewer Americans (56% in 2016 compared to 63% in 2015) are reporting that sugars naturally found in foods and beverages are more healthful than other sugars.

Of the Americans who stated they are trying to limit or avoid sugars, the top three reported actions to reduce sugars consumption were: to drink water instead of caloric beverages more often; eliminate certain foods and beverages from the diet, and; no longer add table sugar to foods and beverages.
Functional Foods

Interest in functional foods (such as prebiotics, probiotics, fiber, soy) have increased over the past year. One-third of Americans (33%) are trying to consume probiotics and more than 10% are trying to consume prebiotics.

Vitamins and minerals continue to be of interest to Americans. Almost half (48%) of Americans report trying to consume potassium and more than half report trying to consume vitamins. Consumer education regarding vitamins is lacking as eight-out-of-ten (80%) Americans report vitamin C as healthy; however, only two-out-of-ten (21%) of Americans reported ascorbic acid (which is another name for vitamin C) as healthy.

Functional foods, vitamins and minerals are common ingredients added to fortified foods. One quarter of Americans are trying to consume fortified foods, indicating that Americans are recognizing the importance of nutrients and foods with added nutrients despite whether or not they were added to the food and/or beverage or were originally in it.

Packaged Foods

More than one-third (35%) of Americans report trying to limit or avoid packaged foods. The top three reasons for doing so are because they contain artificial ingredients or preservatives, they have extra sugar, fat, and salt, and because they believe packaged foods are not healthy.

In contrast, a small number of Americans (4%) report trying to consume packaged foods. The top three reasons for consumption are because packaged foods are convenient, affordable and save time.
Caffeine

More than two-thirds (69%) of consumers know the amount of caffeine that is in the foods and beverages they consume, significantly more than last year (64%). Those with higher incomes and in better health tend to know the caffeine content of foods and beverages. Almost one-half of Americans (47%) are unsure if caffeine that is naturally occurring has the same effect as caffeine that is added to foods and beverages. Men are more likely to agree that naturally occurring caffeine has the same effect as added caffeine.

“More than two-thirds (69%) of consumers know the amount of caffeine they consume.”

Please indicate how much you agree or disagree with the following statement:

*I know the amount of caffeine that is in the foods and beverages I consume.*

2016 Of those who consume caffeine n=939; 2015 n=913; Arrows indicate significant (.95 level) differences vs. 2015
The vast majority (85%) of Americans believe that it’s important to ensure that all people have access to healthy food as the world population grows. Out of this group of respondents, more than two-thirds (70%) see a role for modern agricultural practices and technology in feeding the growing population.

Perceptions of modern agriculture vary greatly among Americans. Notably, only about four-in-ten (37%) Americans agree that most farms are still predominantly family-run. Over half (56%) of Americans agree that modern agriculture produces nutritious, safe, and high quality foods, while nearly half (47%) agree that modern agriculture is sustainable. The number of Americans reporting that sustainability has an important impact on their purchasing decisions increased significantly over last year (35% in 2015 to 41% in 2016). This is consistent with the finding that nearly three-quarters (73%) of Americans think it’s important that foods and beverages be produced sustainably. When addressing the aspects of producing sustainable foods, four out of ten Americans list conserving the natural habitat and reducing the amount of pesticides used as the most important to them.

In general, to what extent do you agree or disagree with the following statements about the use of modern tools, equipment, and technologies in agriculture? Modern agriculture...

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Somewhat agree</th>
<th>Neutral</th>
<th>Somewhat disagree</th>
<th>Strongly disagree</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Produces nutritious foods</td>
<td>20%</td>
<td>36%</td>
<td>26%</td>
<td>5%</td>
<td>9%</td>
<td>56%</td>
</tr>
<tr>
<td>Produces safe foods</td>
<td>20%</td>
<td>33%</td>
<td>30%</td>
<td>6%</td>
<td>9%</td>
<td>53%</td>
</tr>
<tr>
<td>Produces high-quality foods</td>
<td>19%</td>
<td>32%</td>
<td>30%</td>
<td>6%</td>
<td>10%</td>
<td>51%</td>
</tr>
<tr>
<td>Is sustainable</td>
<td>16%</td>
<td>31%</td>
<td>33%</td>
<td>5%</td>
<td>13%</td>
<td>47%</td>
</tr>
<tr>
<td>Farms are still primarily family-run</td>
<td>14%</td>
<td>23%</td>
<td>24%</td>
<td>16%</td>
<td>13%</td>
<td>37%</td>
</tr>
</tbody>
</table>

2016 n=1,003
While only about one-in-ten (13%) regularly buy foods because they have a “sustainably sourced” label, one-third (35%) regularly buy foods because they are labeled as “natural” or “no added hormones or steroids” (34%). Three-in-ten regularly buy foods because they are labeled as “locally sourced” (30%) or “organic” (28%). College graduates and women are more likely to buy food because it is labeled with one of these three terms. Similarly, a quarter (23%) of Americans regularly choose restaurants because their food is advertised as “natural” and/or “locally sourced.” Americans have a range of definitions for the term “natural” when it is applied to food. When asked to give an open-ended response, nearly three-in-ten (29%) Americans said “natural” means “no additives or preservatives” while two-in-ten (19%) said “natural” means that the food is made from “natural ingredients” and is “straight from nature.”

Nearly a quarter (22%) of Americans have a favorable view of the use of agricultural biotechnology ("GMOs") to produce food crops, while another quarter (26%) state that they would need more information to form an opinion. Moreover, another quarter of Americans (27%) have an unfavorable view. College graduates and those with higher incomes are more likely to have a favorable view of “GMOs.” This diverse range of opinions also is reflected in Americans’ responses to questions on the possible benefits of “GMOs.” Over a quarter of Americans see a role for “GMOs” in providing enough food for a growing global population (28%) and developing new food crops that are more nutritious (26%). Americans also see a role for “GMOs” in helping to reduce the environmental impact of farming (25%) and helping farmers adapt to drought or flood conditions (26%).
Only about one-in-six (16%) Americans would like more information on food labels. Out of that group, one-in-five (20%) said that they would like that information to include “GMO” labeling when prompted for an open-ended response.

Nearly three-quarters (74%) of respondents believe that food-producing animals should be treated with antibiotics when they get sick, given that proper precautions are being taken. Also, we see that government’s efforts to phase out the use of antibiotics for growth promotion in food producing animals and the requirement of veterinarian oversight increase consumer confidence that antibiotics are being used responsibly.

**Food Waste**

Many Americans report taking steps to reduce the amount of food that they waste at home or at restaurants. Taking home leftovers from restaurants (58%) and using leftovers for cooking (53%) are the top two steps Americans are taking to reduce their food waste. When asked which activities contribute the most to food waste, over one-third report either buying too much perishable foods initially or forgetting about it until it’s too late. Nearly one-third (30%) of respondents reported that they do not create any food waste. Millennials are more likely than other age groups to identify their activities that contribute to food waste.

<table>
<thead>
<tr>
<th>What contributes the most to the amount of food waste you produce? (Please select just your top answer.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forget about perishable foods until it’s too late</td>
</tr>
<tr>
<td>Purchase too much fresh/perishable food</td>
</tr>
<tr>
<td>Cook big meals and just end up throwing some of it away</td>
</tr>
<tr>
<td>I (or others in the family) don’t eat everything that I (we) put on the plate</td>
</tr>
<tr>
<td>Don’t consume or freeze leftovers in a timely manner</td>
</tr>
<tr>
<td>Don’t like leftovers</td>
</tr>
<tr>
<td>Don’t have time to prepare foods that I buy</td>
</tr>
<tr>
<td>Don’t always know how to prepare foods that I buy</td>
</tr>
<tr>
<td>Don’t take home leftovers from restaurant meals</td>
</tr>
<tr>
<td>Don’t know where/how to donate nonperishable food</td>
</tr>
<tr>
<td>None of the above; I don’t create any food waste</td>
</tr>
</tbody>
</table>

Groups more likely to select:
- College grads
- Those without children
- Age 18-34, Those who eat in less than 30 minutes
- Those who eat in less than 30 minutes
- Age 18-34
- Higher BMI
- Those without children, Lower BMI, In better health
- Those without children
- Age 35-80*, Lower income

2016 n=502
*Age: 65-80 is even more likely to select than Age 35-64.
Overall, confidence in the food supply increased over the past year. Two-thirds (66%) of Americans, up from 61% in 2015, respond that they are at least somewhat confident in the safety of the U.S. food supply. Americans who are older and/or in better health are more likely to be confident in the safety of the food supply.

Foodborne illness from bacteria is a top food safety issue for more than one-half of Americans (57%), outranking chemicals in food (50%), and pesticide/pesticide residues (48%). Food additives and ingredients are considered a top food safety issue for approximately one-third (36%) of Americans. Out of the group that cited food additives or ingredients, chemicals in food, or pesticide residues as a top issue, two-out-of-five (40%) changed their eating habits because of something they read or heard about these topics. Additionally, the term “natural” is most associated with having no preservatives or additives (29%).

"Two-thirds (66%) of Americans...are at least somewhat confident in the safety of the U.S. food supply."

Americans’ awareness of common foodborne illnesses is high, though it dropped slightly in comparison to previous years. Nine-in-ten (90%) Americans have heard of Salmonella as a problem in food, but this number has decreased significantly since 2014. Similarly, seven-in-ten (70%) have heard of E. coli O157 as a problem in food.

Americans are taking regular steps to prevent foodborne illness, with the two most common practices being washing hands with soap and water (83%) and washing cutting boards with soap and water (74%). More than half (51%) of respondents said they would use a food thermometer more often if they were given a free one. Four-in-ten (42%) report that they would be more likely to use a food thermometer if the recipes and cookbooks they used listed proper cooking temperatures in the directions.
Food Decision 2016: The Impact of a Growing National Food Dialogue

News headlines and the opinions of friends and family are just some of the factors that influence how and what Americans eat. Experts, including health professionals and registered dietitian nutritionists, are still top sources of trust for the public despite Americans’ wide and varied options for information. The 2016 Food & Health Survey shows that all these factors have gained importance in the midst of a more prominent national food dialogue.

Over the eleven years of the Survey, results have shown that individuals with higher income and more education typically drive the food dialogue. Though more voices are now joining the conversation, the influence of those with more income and education is still evident. In 2016, as well as previous years, these groups typically report eating healthier while asserting themselves as the most outspoken groups on issues related to sustainability and food production.

Though the ever more complicated national conversation can sometimes result in confusion and disagreement, the 2016 Food & Health Survey shows that the current food dialogue is primarily hopeful. Americans are hungry for more information about nutrition, health, and the environment. Armed with credible information and expert guidance, this passion can be harnessed to create a healthier future for all.

Our Mission:

The International Food Information Council Foundation is dedicated to the mission of effectively communicating science-based information on health, nutrition, and food safety for the public good.

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