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DECEMBER 1, 2016

The New Food Fights: U.S. Public Divides Over Food Science

Differing views on benefits and risks of organic foods, GMOs as Americans report higher priority for healthy eating

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Denise Taylor / Getty Images

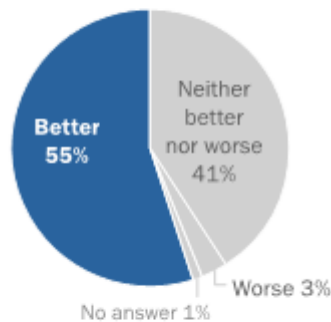
Food has become a flashpoint in American culture and politics. In the past generation, Americans have witnessed the introduction of genetically modified crops, the rise of the organic food industry, increasing concerns about obesity, growing awareness to food allergies and other health concerns linked with what people eat, an expanding volume of best-selling books and publications about food and the proliferation of premier chefs as superstars in popular culture.

There has been a pronounced shift in Americans' eating habits over the past 20 years with far-reaching implications for how food is created, prepared and consumed. Moreover, the way Americans eat has become a source of potential social, economic and political friction as people follow personal preferences reflecting their beliefs about how foods connect with their health and ailments, according to a new survey by Pew Research Center.

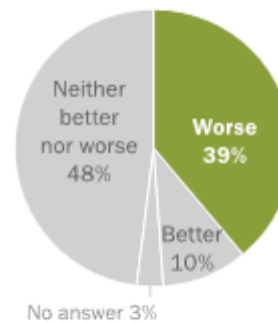
Most Americans see health benefits in organics, a sizable minority sees health risks in GM foods

% of U.S. adults who say the following

Organic produce is __ for health than conventionally grown produce



GM foods are __ for health than non-GM foods



Note: Beliefs about effects of genetically modified (GM) foods includes those who lean toward each response.

Source: Survey conducted May 10-June 6, 2016.

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(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_0-01/) In a way, these choices reflect personalized "ideologies" that shape how people think about and consume food. They are not all-encompassing world views, but they inform key behaviors and attitudes around life's staples.

The new food divides are encapsulated by how people assess the health effects of two kinds of food: organic and genetically modified (GM) foods.

The new survey finds that 55% of Americans believe organically grown produce is healthier than conventionally grown varieties, while 41% say there is no difference between organic and conventionally grown produce and 3% say that conventionally grown produce is better. Four-in-ten Americans (40%) say that most (6%) or some (34%) of the foods they eat are organic. Fully three-quarters of these Americans (75%) are convinced that organic foods are healthier than conventionally grown foods.

At the same time, there is a sizable minority – 39% – of Americans who consider genetically modified foods worse for a person's health than other foods. This compares with 48% of adults who say GM foods are no different from non-GM foods and 10% who say GM foods are better for health.

People's divisions are linked to their interests in food issues but not tied to politics and partisanship

16% *of U.S. adults say they care "a great deal about the issue of genetically modified foods"*

18% *of U.S. adults say the statement "My main focus is on eating healthy and nutritious" describes them very well*

Note: Respondents who gave other responses or who did not give an answer are not shown.

Source: Survey conducted May 10-June 6, 2016.

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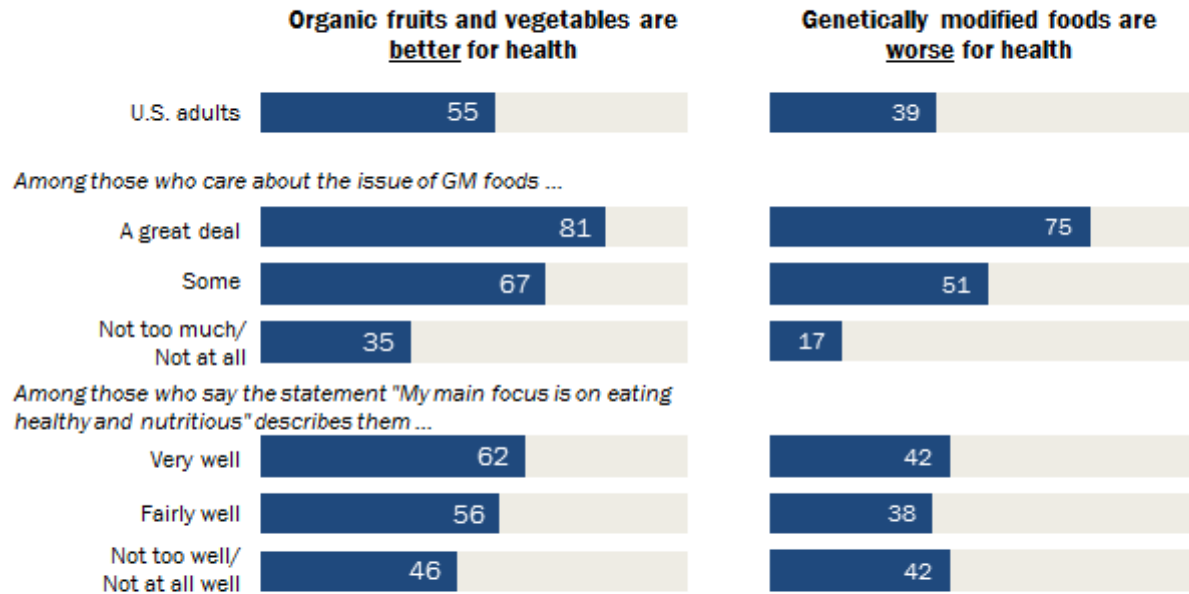
(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_o-02/) The divides over food do not fall along familiar political fault lines. Nor do they strongly tie to other common divisions such as education, income, geography or having minor children. Rather, they tie to individual concerns and philosophies about the relationship between food and well-being. One indicator of such philosophies is the degree of concern people have about the issue of GM foods. The minority of U.S. adults who care deeply about the issue of GM foods (16%) are much more likely than those with less concern about this issue to consider GM foods worse for health (75% vs. 17% of those with no or not too much concern about GM foods); they are also much more likely to consider organic produce healthier: 81% compared with 35% of those with no or not too much concern about GM foods.

The second indicator is how focused people are on eating healthy foods. The 18% of Americans who are particularly focused on healthy and nutritious eating are especially likely to consider organic produce healthier than conventionally grown produce. They follow news about GM foods more closely, though their views about the health effects of GM foods are similar to those with less focus on eating healthy and nutritious foods.

The people in both of these groups eat and shop differently than other Americans; they pay attention to food-related matters in varying ways; they have different views about food-health issues; and noteworthy shares have food allergies or other health problems with certain foods. Their views of scientists and science research findings are often in sync with others, but people with a deep concern about the issue of GM foods are particularly skeptical of information from food industry leaders about the health effects of GM foods and see more industry influence on science research findings than do other Americans.

Mirroring perspectives on the health effects of organic food and GM foods

% of U.S. adults who say ...



Note: Beliefs about effects of GM foods includes those who lean toward each response. Respondents who gave other responses or who did not give an answer are not shown.

Source: Survey conducted May 10-June 6, 2016.

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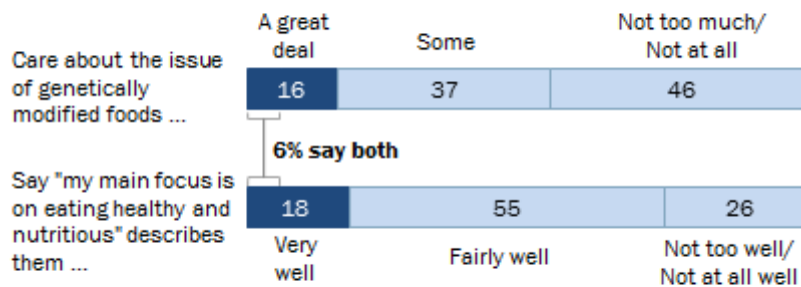
There are also divides by age on views of food issues with younger generations more inclined than older ones to see health benefits in organic produce and health risks in GM foods. But, perhaps surprisingly, women and men tend to hold broadly similar views about organic foods and differences between genders in beliefs about the effects of GM foods are modest. However, women tend to care more deeply about the issue of GM foods than do men, a concern that is quite consequential for people's views and behaviors about food. Income differences come into play in purchasing behaviors, but there are no differences between people with high and low family incomes in terms of beliefs about the healthfulness of organic or GM foods.

These are some of the key findings from a new Pew Research Center survey conducted from May 10 to June 6, 2016, with a nationally representative survey of 1,480 adults. This is the second in a series of reports that details public views on science and scientists in areas that connect with Americans' daily lives.

Personal food philosophies underlie people's thinking and choices about food

Two largely distinct groups of Americans are focused on food issues

% of U.S. adults who ...



Note: Respondents who gave other responses or who did not give an answer are not shown.

Source: Survey conducted May 10-June 6, 2016.

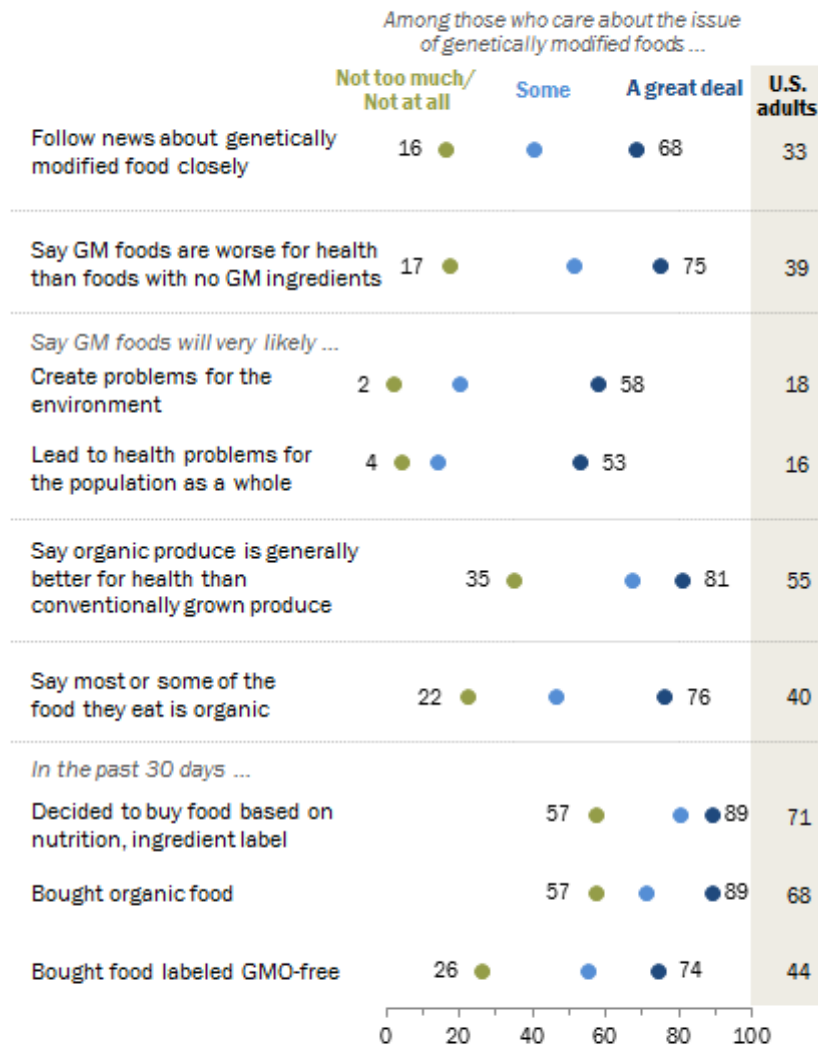
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(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_o-04/) There are pronounced differences in people’s views about organic and GM foods that tie to their underlying outlook about food. One is the degree of concern people have about the issue of GM foods and another is the degree people are focused on eating healthy and nutritious foods. People who care deeply about the issue of GM foods stand out in their concerns about the healthfulness of these foods and the impact GM crops have on public health and the environment, as well as in their general food buying and eating practices. Similarly, people who are focused on eating healthy and nutritious foods stand apart from other Americans in how strongly they think eating is tied to a long and healthy life and in eating “what they should” most days; in their beliefs about the nutritional value of organic food; and in their attention to nutrition and ingredient labels.

Views and behaviors about a wide range of food topics in U.S. are linked with concern about GM foods issue

% of U.S. adults who ...



Note: Beliefs about effects of GM foods includes those who lean toward that response. Responses for following news about GM foods “very” or “somewhat” closely are combined. Respondents who gave other responses or did not give an answer are not shown. Source: Survey conducted May 10-June 6, 2016. “The New Food Fights: U.S. Public Divides Over Food Science”

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(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_0-05/) Interestingly, those who are concerned about the issue of GM foods and those who are nutrition focused are largely different groups of Americans: Just 6% of adults both care a great deal about GM food issues and say their own eating style is focused on being healthy and nutritious. But their eating habits, their views about organic foods, their views about GM foods and the importance of foods in health are often at odds with those of other Americans.

People’s differences in opinions that are tied to their food “ideologies” are not as wide or consistent by comparison with the highly politically polarized views on climate change (<http://www.pewinternet.org/2016/10/04/the-politics-of-climate/>) and some other science-related issues. And opinion differences on food issues are conspicuously not political. For

example, roughly equal shares of Republicans (39%) and Democrats (40%) feel that GM foods are worse for people's health. And, half of Republicans (50%) and 60% of Democrats have positive views about the health benefits of organic foods.¹

The survey shows that people's concerns about the GM foods issue are strongly related to their beliefs about GM foods and the likely effects of these foods on society. Fully three-quarters (75%) of those who are deeply concerned about this issue say that GM foods are worse for one's health than other foods and many more in this group believe that these foods will bring environmental and health problems for society. But this level of concern about GM foods also ties to ways people assess the world of food, their purchases at the grocery store and what they eat at home. Some of the major distinctions that highlight the differences among them:

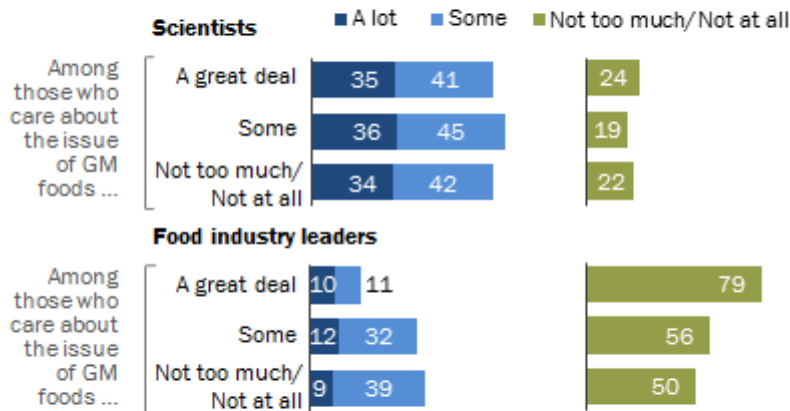
- Fully 81% of those who care a great deal about the issue of GM foods think organic produce is healthier than other conventionally grown foods, compared with 35% of those who are not particularly concerned about the issue of GM foods.
- Those deeply concerned about the GM foods issue eat more organic foods; 76% say most or some of what they eat is organic. By contrast, fully 75% of those with little concern about the issue of GM foods say they do *not* eat organic foods or not too much of what they eat is organic.
- People deeply concerned about the issue of GM foods also take that focus to the grocery aisles. The vast majority of this group (89%) has purchased foods based on the nutrition and ingredient labels and 82% have done so several times in the past month; 89% have bought organic foods and 74% have bought foods labeled GMO-free. Fewer of those with less concern on the issue of GM foods have done the same (57% of those with not too much or no concern about the issue of GM foods have decided what to buy based on nutrition and ingredient labels, 57% have bought organic foods in the past month and just 26% have bought foods labeled GMO-free.)
- People with deep concern about the issue of GM foods are especially convinced that healthy eating habits lead the way to a long and healthy life; 87% of those who care a great deal about the GM foods issue say healthy eating is very important for a person's chances of a long and healthy life, compared with 68% among those who do not care about the GM foods issue at all or not too much.
- More people with deep concern about the issue of GM foods are more likely to follow vegan or vegetarian diets, at least mostly – 21% do, compared with 6% of those who do not care too much or at all about the issue of GM foods.

Women are more likely than men to care deeply about the issue of GM foods (20% vs. 12%). But people with deep personal concern about the issue of GM foods are diverse in their races, ethnicities, ages, education and family incomes. There are some modest differences by age, education and income with more of those ages 65 and older, those with lower family incomes (under \$30,000 annually) and those with less education (high school degrees or less) saying they do not care at all or not too much about the issue of GM foods. Some 16% of Republicans and the same share of Democrats (16%) say they care a great deal about this issue.

People's views about scientists connected with GM foods: Americans with deep concern about the issue of GM foods hold mixed views about scientists connected with GM foods. Those deeply concerned about this issue say that scientists understand the health effects of GM foods very well (32%). And, 35% of this group says they trust scientists a lot to provide full and accurate information about the health effects of eating GM foods. But in these areas their views look similar to Americans with less concern about the issue of GM foods.

Trust in information from food industry leaders is lower for those deeply concerned about issue of GM foods

% of U.S. adults who say they trust each of these groups ___ to give full and accurate information on the health effects of genetically modified foods



Note: Respondents giving no answer are not shown.
 Source: Survey conducted May 10-June 6, 2016.
 "The New Food Fights: U.S. Public Divides Over Food Science"

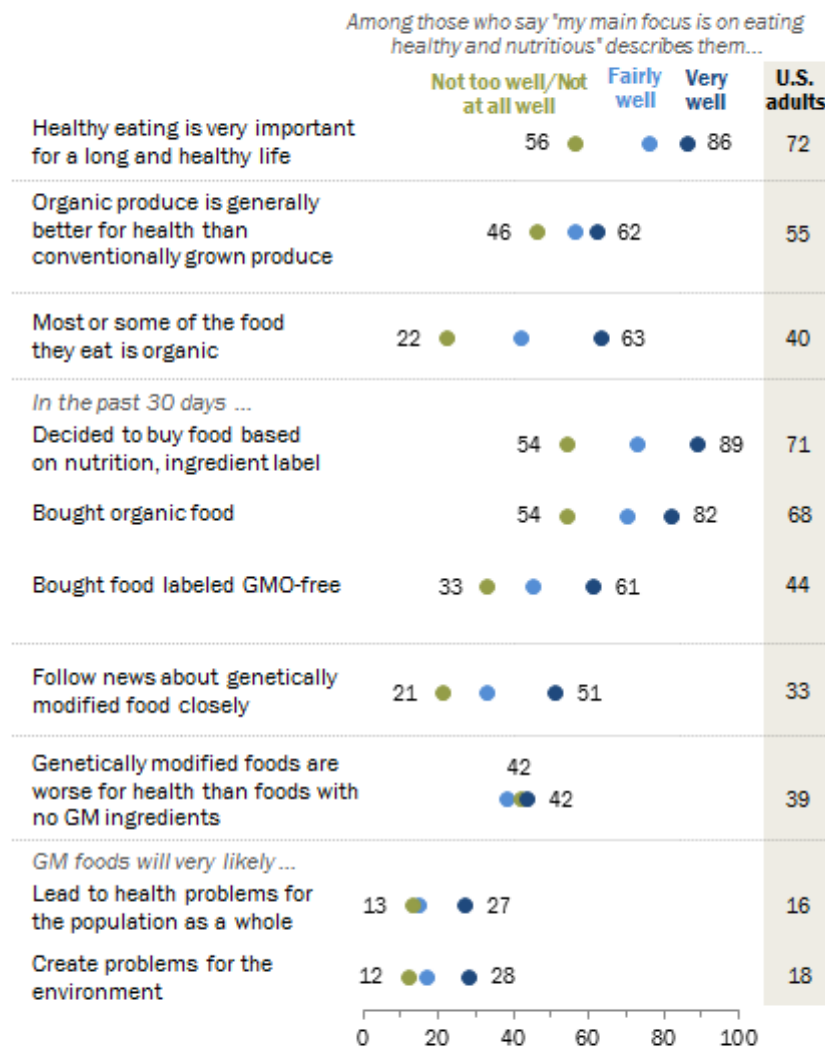
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(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_o-06/) At the same time, this group is more skeptical of food industry leaders and the potential influences from industry interests on scientific research findings. Just 21% of those deeply concerned about the issue of GM foods trust food industry leaders at least some to provide full and accurate information about the effects of GM foods and 79% do not trust information from food industry leaders too much (39%) or at all (40%). By contrast, 48% of those who do not care about the issue of GM foods at all or not too much say they trust information from food industry leaders at least some.

And, half of those who care deeply about the issue of GM foods (50%) say that scientific findings about GM foods are influenced by the researchers' desires to help their industries "most of the time." In contrast, 22% of those with little personal concern about the issue of GM foods say the same.

Americans' views and choices about food are strongly linked with their focus on healthy and nutritious eating

% of U.S. adults



Note: Beliefs about effects of GM foods includes those who lean toward that response. Responses for following news about GM foods "very" or "somewhat" closely are combined. Respondents who gave other responses or did not give an answer are not shown. Source: Survey conducted May 10-June 6, 2016. "The New Food Fights: U.S. Public Divides Over Food Science"

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(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_o-07/) People's "ideologies" when it comes to food are multifaceted. A second indicator of people's outlooks about food is their degree of focus on healthy and nutritious eating, which also has far-ranging implications for how they see the world of food, their food purchases and their eating practices. Some of the major distinctions that highlight the differences among them:

- Some 86% of those who are focused on eating healthy and nutritious food say this practice is very important for a person's chances of leading a long and healthy life, compared with 56% of those who are not particularly focused on healthy eating. People focused on eating healthy are more inclined than other Americans to say the types of foods Americans eat are a bigger problem today than how much people eat (34% compared with 21% of those with little focus on healthy eating.)

- A majority of those focused on eating healthy foods (62%) believe that organic produce is healthier than conventionally grown produce, compared with 46% for whom healthy eating is not a priority. And a similar share (63%) says most or some of what they eat is organic. In contrast, just 22% of those with little focus on eating healthy say at least some of what they eat is organic.
- People who are focused on eating healthy and nutritious food generally think they reach their goals; seven-in-ten (70%) of this group say they eat about what they should most days, compared to just 13% of those who place little or no priority on healthy eating.
- Americans focused on healthy and nutritious eating are more likely to follow vegan or vegetarian diets – 22% say they are at least mostly vegan/vegetarian, compared with 3% of those with little or no priority on healthy eating. Those focused on healthy and nutritious eating are also more likely to report they have allergic reactions to food: 26% have at least a mild food allergy, compared with 15% among those with little or no focus on healthy eating.

While men and women are about equally likely to say they are focused on healthy and nutritious eating (16% vs. 20%), more men (31%) than women (22%) say that a focus on healthy eating does not describe them too well or at all. Younger adults, ages 18 to 29, are a bit less likely than older age groups to be at least somewhat focused on healthy and nutritious eating. But there are no differences among education, family income or party affiliation groups in terms of the share focused on healthy eating.

Americans' focus on healthy eating and their views about scientists and research on GM foods: People focused on eating healthy and nutritious foods follow news about GM foods more closely than other Americans: 51% follow at least somewhat closely, compared with 21% of those with little or no priority on healthy eating. But, perhaps surprisingly, their views about GM foods are similar to or only modestly different from those with less focus on healthy and nutritious eating. People's views about scientists and research findings related to GM foods are also only moderately different depending on one's orientation toward healthy and nutritious eating. To the extent these groups differ in their views, those with a focus on eating healthy and nutritious foods tend to be a bit more convinced that scientists understand the health effects of GM foods very well, to trust scientists a lot to provide full and accurate information about GM foods and to see science research findings as rooted in the best available evidence most of the time.

The impact of food restrictions and dietary accommodations on social gatherings: While there are wide differences in views and eating behaviors depending on people's concerns and orientations toward these food issues, it's not clear how much friction over these issues occurs among friends and family. A minority (31%) of Americans say it bothers them at least some when guests ask for special food options at social gatherings they are hosting. Americans' feelings about guests' requests for dietary accommodations are about the same regardless of people's focus on eating healthy or their concern about GM foods.

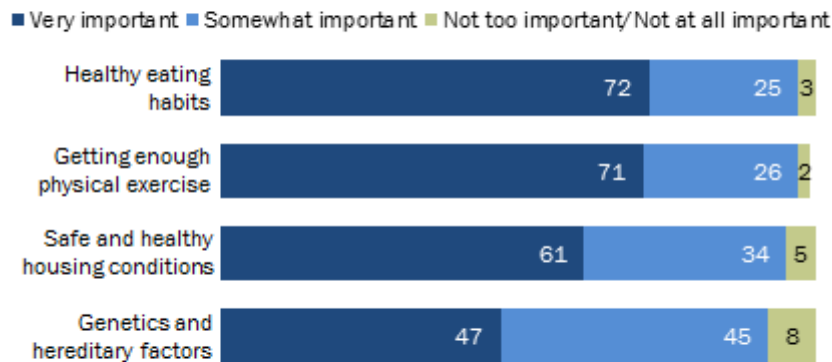
A sizable minority of U.S. adults (37%) say that hosts should always ask guests ahead of time about food restrictions, however. This view is more common among those with deep concern about the issue of GM foods (49% say hosts should always do this compared with 32% among those with little concern about the GM foods issue.)

The public believes two controllable factors are critical for a long and healthy life: healthy eating and exercise

Fully 54% of Americans say that compared with 20 years ago, people in the U.S. pay more attention to eating healthy foods today. Smaller shares say people pay less attention (26%) or about the same amount of attention (19%) to eating healthy today.

Majority of Americans say healthy eating, physical exercise are key to a long and healthy life

% of U.S. adults who say each of the following is ___ when it comes to improving a person's chances of a long and healthy life



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted May 10-June 6, 2016.

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(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_o-08/) Most Americans consider their future health within their grasp – if only they eat and exercise adequately. Roughly seven-in-ten adults say that healthy eating habits (72%) and getting enough physical exercise (71%) are very important for improving a person's chances of living a long and healthy life.

Yet people's behavior does not appear to match that ideal. A 58% majority of Americans says most days they should probably eat healthier, while some 41% say they eat about what they should most days. But among the minority of Americans who are focused on eating healthy and nutritious foods, fully 70% say they eat about what they should most days, compared with just 13% of those with little focus on healthy and nutritious eating.

Food allergies and other health issues related to food tie with people's food philosophies

A notable share of those who focus on food issues are people who have struggled with food. About one-in-seven (15%) U.S. adults say they have mild, moderate or severe allergies to one or more foods. Another 17% of adults have intolerances to one or more foods. Food allergies factor into people's eating philosophies; some 26% of those focused on eating healthy and nutritious food have at least mild food allergies.

About one-in-ten Americans follow vegan or vegetarian diets at least mostly

Some 3% of Americans say they follow a strict vegan or vegetarian diet and another 6% say they are mostly vegan or vegetarian. The share of people eating at least mostly vegan/vegetarian diets is considerably higher among those focused on eating healthy and nutritious foods (22% compared with 3% among those not at all or not too focused on this). Similarly, 21% of those who care a great deal about the issue of GM foods follow diets that are at least mostly vegan or vegetarian, compared with 6% of those who do not care about this issue at all or not too much.

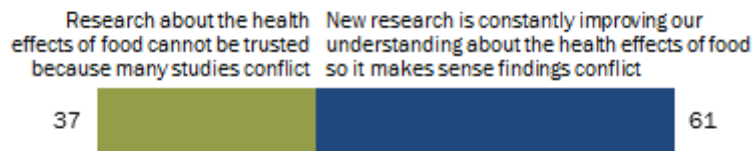
Food news 'whiplash' does not have great impact on most Americans' overall views

Observers have worried that the back and forth of conflicting reports about the health effects of food and drink in the media confuses the public, or worse, fosters distrust in health and nutrition science.² The new Pew Research Center survey finds that a majority of Americans sense the proliferation of conflicting news but are, on the whole, unfazed. But people with less knowledge about science are closely divided over such studies.

Fully two-thirds (66%) of the public says they hear or read news stories about the health effects of what people eat and drink every day (23%) or a few times a week (43%). And many Americans perceive such studies as contradicting prior news reports at least some of the time. Most Americans say they hear or read news stories about the health effects of foods which conflict with earlier studies some of the time (51%) or all the time (21%).

Most Americans say conflicting news stories about the health effects of food reflects improved understanding

% of U.S. adults who say ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted May 10-June 6, 2016.

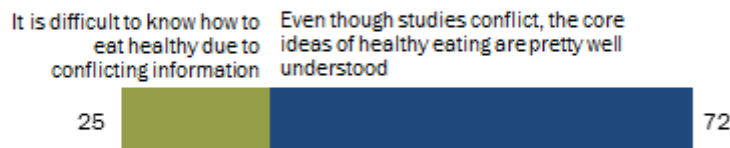
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(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_0-12/) A majority of the American public (61%) says "new research is constantly improving our understanding about the health effects of what people eat and drink, so it makes sense that these findings conflict with prior studies." By comparison, 37% say "research about the health effects of what people eat and drink cannot really be trusted because so many studies conflict with each other." Most people with high (74%) or medium (65%) levels of science knowledge, based on a nine-item index, say the conflicting stories are understandable. But people with low science knowledge are closely divided between these two positions: 46% say this is understandable given constant improvements in research understanding and 50% say it suggests that such research cannot really be trusted.³

Despite conflicting reports, a majority of Americans say they understand the core ideas of eating healthy

% of U.S. adults who say ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted May 10-June 6, 2016.

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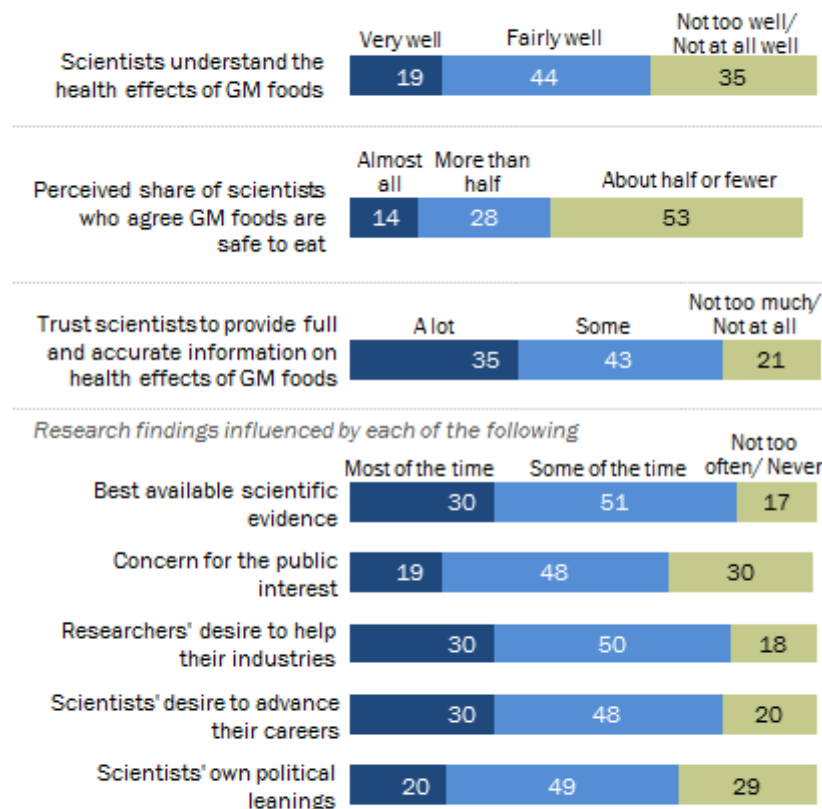
(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_o-09/) Fully 72% of U.S. adults say even though new studies sometimes conflict with prior findings “the core ideas about how to eat healthy are pretty well understood.” Majorities of those with more and less focus on eating healthy share this viewpoint as do majorities of those with more and less concern about the issue of GM foods.

But, here too, people with low science knowledge are closely divided. Half of those with low science knowledge say the core ideas of healthy eating are pretty well understood (50%) and a nearly equal share (47%) say it is difficult to know how to eat healthy due to conflicting information. By contrast, just 8% of those with high science knowledge say it is difficult to know how to eat healthy and 92% say the core ideas of healthy eating are pretty well understood.

There is considerable skepticism about scientific understanding, consensus and influences on research about genetically modified foods

Americans have limited trust in scientists connected with genetically modified foods

% of U.S. adults



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted May 10-June 6, 2016.

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(http://www.pewinternet.org/2016/12/01/the-new-food-fights/ps_2016-12-01_food-science_o-10/) While a 2014 Pew Research Center survey (<http://www.pewinternet.org/2015/01/29/chapter-2-perspectives-on-the-place-of-science-in-society/>) found most Americans (62%) see benefits of scientific advances on the quality of food, in general people’s views of scientists connected with genetically modified foods in this new survey are largely skeptical, or at best, tepid.