



2007 Consumer Attitudes toward Functional Foods/ Foods for Health



EXECUTIVE SUMMARY

IFIC
International
Food
Information
Council

Introduction



Health and nutrition advice from the United States (U.S.) government emphasizes the need for Americans to include more healthful foods in their diets. The abundance of functional foods offers many opportunities to improve the healthfulness of the diet. Health professionals, educators, and journalists can help change consumer behaviors by first understanding their attitudes, awareness, and interest in these foods and beverages that provide added benefits. With information that considers the latest consumer perspective, food and nutrition communicators can better relate with consumers and guide them to make informed and healthful food choices.

In 2007, the International Food Information Council (IFIC) commissioned its fifth survey to study Americans' awareness and attitudes toward "functional foods"—foods and beverages that provide benefits beyond basic nutrition. Functional foods include a wide variety of foods and food components believed to improve overall health and well-being, reduce the risk of specific diseases, or minimize the effects of other health concerns.

Results from this survey, conducted every two to three years since 1998, provide ongoing consumer insights into

the interests and beliefs about foods and beverages and their roles in promoting health and wellness. The latest round of research was designed to:

- Measure and track changes in consumer awareness and interest in functional foods;
- Explore how awareness levels and maturity of functional food/benefit pairs impact behavior and perceptions; and
- Gauge consumer awareness and attitudes toward using individual genetic information to make nutrition and diet-related recommendations.

This latest research on functional foods further investigates recent findings from the IFIC Foundation *Food & Health Survey*, a survey conducted in early 2007 to explore consumer attitudes toward food, nutrition, and health. A segment of this survey explored consumer perceptions of and interest in added benefits offered by foods and beverages (see Research Findings from the *2007 IFIC Foundation Food & Health Survey* on page 2 for more complete information).

2007 IFIC Foundation Food & Health Survey

The *2007 IFIC Foundation Food & Health Survey* is designed to provide ongoing consumer insights into how consumers view their own diets, their efforts to improve them, and their understanding of the components of their diets. The 2007 survey builds upon the data released in the benchmark *2006 Food & Health Survey*, which included questions to evaluate consumers' knowledge and attitudes toward overall diet, physical activity, weight, nutrients, and sources of nutrition information. New questions were added in 2007 to explore consumer awareness and interest in the functional benefits of foods and beverages that can contribute to physical health as well as a sense of well-being. The following highlights from the *2007 Food & Health Survey* offer perspectives and insights into findings from the *2007 IFIC Consumer Attitudes toward Functional Foods/Foods for Health* consumer research.

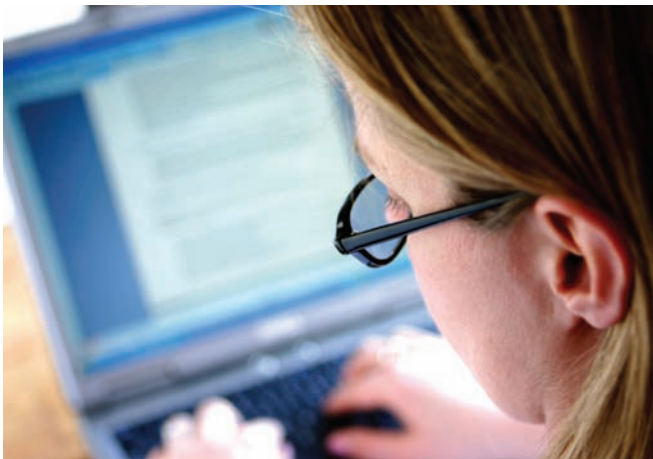
Although the majority of Americans (80 percent) rate their health status as “excellent,” “very good,” or “good,” significantly fewer (58 percent) say they are “somewhat” or “extremely satisfied” with their health status. This gap indicates that many Americans who consider themselves to be healthy perceive room for improvement. In fact, more Americans say they are making changes to improve the healthfulness of their diets, compared to 2006, in an effort to improve overall well-being (70 percent) and physical health (65 percent) and to lose weight (70 percent). Changes that Americans are making to improve the healthfulness of their diet include both increasing (36 percent in 2007 vs. 23 percent in 2006) and decreasing (29 percent in 2007 vs. 21 percent in 2006) consumption of specific foods and beverages.



Overall, consumers believe in benefits offered by foods and beverages, including improving heart health (80 percent), maintaining overall health and wellness (77 percent), improving physical energy or stamina (76 percent), improving digestive health (76 percent), improving immune system function (71 percent), providing higher levels of satiety (70 percent), and reducing the risk of getting specific diseases (65 percent), among others. In line with this finding, more than 80 percent of all Americans say they are currently consuming or would be interested in consuming foods or beverages for these added benefits, as well as others. Additionally, when it comes to making purchase decisions, significantly more consumers cite the healthfulness of a product (65 percent) as a factor that influences their decision to purchase a food or beverage—coming in behind taste (88 percent) and price (72 percent). Convenience was also mentioned by 55 percent of consumers.

For more detailed information on the 2007 IFIC Foundation Food & Health Survey, visit:

<http://www.ific.org/research/foodandhealthsurvey.cfm>



Methodology

IFIC 2007 Consumer Attitudes toward Functional Foods/ Foods for Health

IFIC commissioned Cogent Research of Cambridge, MA to conduct a quantitative study of American consumers' attitudes, awareness, and interest in functional foods. Between April 10-24, 2007, 1,000 adults, 18 years and older, were randomly selected to participate in a 20-minute Web-based survey. Questions were either open-ended or participants were prompted and asked to rate specific responses. Data were weighted by education, age, and ethnicity to allow the findings to be representative of the American population.

This research report highlights key findings from the Web-based quantitative survey and offers perspectives on the trends and evolution of consumer attitudes and awareness to help enhance understanding of consumer behaviors related to functional foods.

NOTE: When consumers were asked questions about "food," it was defined as "everything people eat, including fruits, vegetables, grains, meats, dairy, as well as beverages, herbs, spices, and dietary supplements."

Research Findings

General Attitudes toward Health

The majority (63 percent) of U.S. consumers remain confident that they have a “great amount” of control over their own health. Consistent with previous surveys, consumers overwhelmingly believe food and nutrition play the greatest role in maintaining or improving health (75 percent), more so than exercise (66 percent) or family history (43 percent).

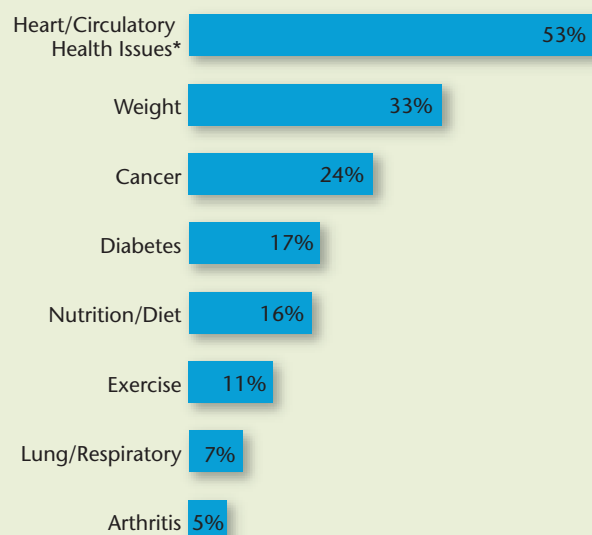
Heart-related and circulatory conditions, including general heart health, blood pressure, stroke, and high cholesterol remain top health concerns of consumers. More than half (53 percent) of all Americans cite heart disease as their top health concern, similar to 2005 (54 percent), but an increase from 2002 (41 percent) and 2000 (40 percent). In line with this finding, the number of Americans who are concerned with their cholesterol level has more than doubled since 2000 (five percent to 13 percent in 2007). Consistent with 2005, the number of consumers mentioning weight as a top health concern remains higher (33 percent) than cancer (24 percent). Diabetes remains as the fourth largest health concern (17 percent). Although other health issues continue to be consistently less of a concern, nutrition/diet has increased in concern compared to previous years (16 percent vs. seven percent in 2005 and 12 percent in 2002).

Consumers were asked to report specific dietary changes they have made over the past year to improve or maintain their overall health. These changes were categorized as either additions or reductions to the diet. Americans continue to focus on removing foods or food components from the diet with about half of consumers reporting changes that involve reductions, including trying to consume less fat, reducing calorie intake, and eating



less sugar. In contrast, only about one in four consumers report changes that involve adding more healthful foods to the diet, including eating more vegetables, fruits, and grains, getting more fiber, and drinking more water. Compared to 2005, the percentage of Americans who report changes as additions to the diet (23 percent vs. 25 percent in 2005) or as reductions to the diet (49 percent vs. 52 percent in 2005) has remained stable.

Top Health Concerns



What are your top three health concerns, listed in order of importance to you? (Multiple Response, Unaided) (n=1000)

* Includes heart disease, blood pressure, cholesterol, & stroke

Examples of Dietary Changes

Reductions

15%	Trying to consume less fat
11%	Reducing calorie intake/eating less
10%	Reducing sugar intake
5%	Lowering carbohydrate intake
5%	Reducing salt intake
4%	Eating less meat
4%	Stopping or reducing junk/fast food intake
4%	Stopping or reducing fried food intake
3%	Drinking less soda

Additions

11%	Eating more vegetables
9%	Eating more fruit
3%	Eating more fiber
3%	Drinking more water
2%	Eating more grains
2%	Taking vitamins/supplements

Over the past year, what changes have you made to your diet in an effort to improve or maintain your health? (Multiple Response, Unaided) (n=1000)

When asked about their belief in functional foods, the vast majority (85 percent) of consumers agree that certain foods have health benefits that go beyond basic nutrition and may reduce the risk of disease or other health concerns. Consumers most likely to “strongly agree” that certain foods have health benefits beyond basic nutrition are those who believe they have “great” control over their health (52 percent vs. 35 percent “moderate” control, and 31 percent “no or a small amount” of control), those who perceive food and nutrition to have a “great role in maintaining or improving overall health” (53 percent vs. 23 percent “moderate” and 26 percent “no or a little role”), those stating they have “excellent” health status (62 percent vs. 50 percent “very good,” 41 percent “good,” and 43 percent “fair/poor”), and supplement users (50 percent vs. 37 percent of those who do not).

More Findings of Interest:

- U.S. consumers who believe they have a “great amount” of control over their own health include those who also believe that “food and nutrition” play a “great role” in maintaining or improving overall health (70 percent vs. 44 percent who believe it plays a “moderate role” and 36 percent who believe it plays “no or a limited role”), consumers who take vitamins, herbal, or other dietary supplements (67 percent vs. 56 percent of those who do not), consumers who have attained at least some college education or higher (67 percent of some college and 68 percent of college

graduates vs. 58 percent of those who have a high school degree or less), and consumers who state their overall health is “excellent” (94 percent vs. 38 percent of those whose health is “poor” or “fair”).

- Americans who are most likely to cite the role of “food and nutrition” in improving health as “great” are consumers who state that their overall health is “excellent” (86 percent vs. 69 percent of those who state their health is “fair” or “poor”), supplement users (80 percent vs. 68 percent of non-users), college graduates (80 percent vs. 72 percent with high school or less), and consumers who “strongly agree” that certain foods have health benefits that go beyond basic nutrition (88 percent vs. 61 percent who “somewhat agree”).
- Americans’ belief that family health history plays a “moderate” to “great role” in maintaining and improving health (87 percent) has remained fairly stable since 2005 (90 percent), but reflects an overall increase compared to previous years (82 percent in 2002, 80 percent in 2000, and 85 percent in 1998).
- The number of Americans mentioning weight as a top health concern (33 percent) remains consistent with 2005 (34 percent), and has doubled since 2000 (14 percent). Consumers most likely to mention weight are those who do not take vitamin, herbal, and dietary supplements (38 percent vs. 30 percent supplement takers), females (37 percent vs. 28 percent of males), and consumers 34 years of age and younger.

Awareness and Interest in Functional Foods

Similar to 2005, nine out of 10 Americans are able, on an unaided basis, to name a specific food or component and its associated health benefit. This represents a steady and significant increase compared to 84 percent in 2002, 82 percent in 2000, and 77 percent in 1998. On an unaided basis, the top “functional foods” named by consumers in the 2007 quantitative survey were fruits and vegetables (general), fish/fish oil/seafood, milk, whole grains, fiber, oats/oat bran/oatmeal, green tea, meat/red meat, water, herbs/spices, dairy (other than milk), cereal, nuts, and juice.

More specifically, two-thirds of consumers named fruits and vegetables, either generically or specifically, consistent with levels seen in 2005 (66 percent) and 2002 (67 percent). Mentions of fish, fish oil, and seafood as functional foods increased to 14 percent from 11 percent in 2005. Other increased mentions include whole grains (10 percent vs. eight percent in 2005), omega-3 fats (two percent vs. one percent in 2005), and general herbs and spices (four percent vs. less than one percent in 2005). Meat/red meat was named specifically for the first time as a functional food by six percent of consumers. Top-of-mind, other foods and food components were mentioned less often compared to 2005, including fiber (six percent vs. 10 percent in 2005), dairy products in general (four percent vs. 12 percent in 2005), and lycopene (less than one percent vs. two percent in 2005). When asked about the type of health benefit associated with the named foods, most Americans report cardiovascular disease (36 percent) followed by general health (15 percent), digestive/intestinal health (15 percent), cancer (14 percent), and weight maintenance (eight percent), among others.

Consumers were asked to consider a specific health concern and name a food or food component believed to reduce the risk of that disease or condition. Overall, awareness of the associations between specific foods and reduced risk of health concerns grew stronger. Compared to previous years, significantly more Americans are able to name a specific food or food component associated with menopause, aging, breast cancer, high blood pressure, colon cancer, eye disease, mental performance, diabetes, and weight management/maintaining a healthy weight.

Americans remain highly interested in learning more about functional foods. This high level of interest—41 percent are “very interested” and another 42 percent are “somewhat interested”—has remained unchanged over previous years. In line with this finding, Americans report being interested in consuming a wide variety of foods for health benefits. When prompted with a list of various foods, the top three types of foods consumers are interested (either “somewhat” or “very”) in consuming



Top “Functional Foods” Named by Consumers

Fruits and vegetables
Fish, fish oil, seafood
Milk
Whole grains
Fiber
Oats, oat bran, oatmeal
Green tea
Meat, red meat
Water
Herbs/spices
Dairy (other than milk)
Cereal
Nuts
Juice

What is the (first/second/third) food or food component that comes to mind that is thought to have health benefits beyond basic nutrition? (n=1000)

for desired health benefits are cereals/breads (94 percent), meat/poultry/fish (94 percent), and dairy products (91 percent). Other types of food that more than half of Americans would be interested in consuming for health benefits include salad dressings or condiments, beverages or beverage mixes, sweet snacks or desserts, dietary supplements, salty or savory snacks, confectionary or candies, sports or energy bars, and meat alternatives.

More Findings of Interest:

- Consumers' reported food/health associations are dominated by their top health concerns of heart disease, weight maintenance, and cancer. On an unaided basis, Americans associate fish/fish oil/seafood, oats/oat bran, garlic, cereal, and whole grains with benefits related to cardiovascular disease. For cancer, Americans associate broccoli, tomatoes, other fruit, and green, leafy vegetables. The top foods/food components associated with weight maintenance include green tea and other vegetables. Other top food/food component and health benefit associations include dairy for bones and osteoporosis, carrots for eye health, and fiber and whole grains for intestinal health.
- Americans who are more likely to be "very interested" in learning more about functional foods are those who feel that food plays a "great role" in overall health (50 percent vs. 19 percent "moderate role," and three percent "no or a limited role"), those who feel they have "great control" over their health (45 percent vs. 37 percent "moderate control," and 31 percent "little or no control"), supplement users (47 percent vs. 33 percent of non-users), primary grocery shoppers in the household (46 percent vs. 28 percent other), and females (48 percent vs. 34 percent males).
- The majority of consumers (69 percent) continue to have no specific concerns about functional foods.

Consumption Behaviors and Awareness of Food/Health Benefit Pairs



Consumers were then asked, on an aided basis, whether they are aware of specific food components, their corresponding food sources, and associated health benefits. With the exception of a few associations, awareness has remained stable or declined from 2005. The dominant food/health associations continue to be those

related to bone health, cardiovascular disease, cancer, and benefits associated with fiber. Awareness of specific food associations that have increased among consumers since 2005 include "probiotics, found for example in yogurt and other products fortified with beneficial cultures, for maintaining a healthy digestive system and immune system" (58 percent vs. 49 percent in 2005 and 54 percent vs. 46 percent in 2005, respectively) and "soy protein/soy, found for example in soy-based products such as meat alternatives, nutritional bars, and beverages such as soymilk, for reduced risk of heart disease" (55 percent vs. 41 percent).

The functional foods or food components already being consumed by Americans parallel their awareness of food and health associations. When prompted with specific food or food component and health benefit pairs, consumers report they are already eating specific foods or components related to some of their top health concerns, including cardiovascular disease, cancer, and benefits related to bone health. Of those who are aware of various associations, roughly 25 to 60 percent of all Americans are currently consuming specific foods/food components for related health benefits. The foods or components that Americans are most likely to be eating for a specified health condition are "fiber, found for example in vegetables, fruits, and some fortified foods such as breads and cereals, for a healthy digestive system" (57 percent); "calcium, found for example in dairy foods such as milk, cheese, or yogurt or in calcium-fortified

foods or beverages, for bone health” (56 percent); and “whole grains, found for example in whole grain cereals, breads, rice or pasta, for reduced risk of heart disease” (56 percent). In addition, more consumers overall report they are “very likely” to begin eating specific food components or nutrients for health benefits. For example, compared to 2005, more consumers report that they are likely (“very” or “somewhat”) to begin eating foods with antioxidants, probiotics, and lutein, for protection against free radicals, a healthy digestive system and eye health, respectively.

For more detailed information see pages 9 and 10.



More Findings of Interest:

- Awareness of specific food associations that have decreased among consumers since 2005 include antioxidants for protection against free radical damage (72 percent vs. 79 percent in 2005), folic acid for reduced risk of neural tube birth defects (55 percent vs. 63 percent), fiber for maintaining a healthy digestive system (86 percent vs. 92 percent), vitamin D for promotion of bone health (81 percent vs. 88 percent), lycopene for the reduced risk of prostate cancer (49 percent vs. 57 percent), fiber for reduced risk of cancer (73 percent vs. 83 percent), and whole grains for reduced risk of heart disease (72 percent vs. 83 percent).
- Supplement users and consumers 65 years and older show higher awareness of most food/health associations.
- Consumers 55 years and older are most likely to be eating specific food components or nutrients for health benefits.
- Food/health associations with lower levels of awareness tend to be those involving lesser health concerns, such as cognitive development, eye health, oral health, or lesser known food components, such as lutein, lycopene, prebiotic fiber, plant sterols, and xylitol. Similarly, food components less likely to be consumed for health benefits also tend to be the lesser known, such as probiotics, prebiotic fiber, plant sterols, xylitol, and soy protein.
- A new question was added in 2007 to assess consumers' awareness of the potential health benefits of herbs and spices. As expected, awareness was comparatively low (46 percent) given the emerging nature of the science. As with other lesser known diet and health relationships, awareness will likely increase as new data become available and communication increases.

Awareness and Consumption of Nutrients for Certain Health Benefits

Diet and Health Relationship	Awareness of Relationship	Already Consuming	Likely or Somewhat Likely to Consume
Calcium, found for example in dairy foods such as milk, cheese, or yogurt or in calcium-fortified foods or beverages, for the promotion of bone health (n=503)	89% (n=449)	56%	37%
Fiber, found for example in vegetables, fruits, and some fortified foods such as breads and cereals, for maintaining a healthy digestive system (n=497)	86% (n=427)	57%	37%
Vitamin D, found for example in fortified foods and beverages, for the promotion of bone health (n=497)	81% (n=403)	53%	39%
Omega-3 fatty acids, found for example in seafood, fish oil, or fortified foods, for reduced risk of heart disease (n=497)	76% (n=379)	45%	44%
Fiber, found for example in vegetables, fruits, and some breads and cereals, for reduced risk of heart disease (n=497)	74% (n=369)	54%	40%
Fiber, found for example in vegetables, fruits, and some fortified foods such as breads and cereals, for reduced risk of cancer (n=503)	73% (n=364)	53%	42%
Whole grains, found for example in whole grain cereals, breads, rice, or pasta, for reduced risk of heart disease (n=503)	72% (n=362)	56%	40%
Antioxidants, found for example in fruits and vegetables, dark chocolate, and certain teas, for protection against free radical damage implicated in aging and various chronic diseases (n=497)	72% (n=357)	52%	41%
Potassium, found for example in fruits, vegetables, and juices, for reduced risk of high blood pressure and stroke (n=503)	64% (n=321)	52%	42%
Monounsaturated fats, found for example in olive oil and nuts, for reduced risk of heart disease (n=503)	63% (n=318)	43%	48%
B vitamins, found for example in meats, whole grains, vegetables, and nuts, for reduced risk of heart disease (n=503)	61% (n=306)	53%	40%
Probiotics, found for example in yogurt and other products fortified with beneficial cultures, for maintaining a healthy digestive system (n=497)	58% (n=287)	41%	45%
Folate or Folic acid, found for example in fortified grain products and citrus juices, for reduced risk of brain or spinal cord birth defects (n=497)	55% (n=275)	42%	41%
Folate or Folic acid, found for example in fortified grain products and citrus juices, for reduced risk of heart disease (n=503)	55% (n=277)	41%	52%

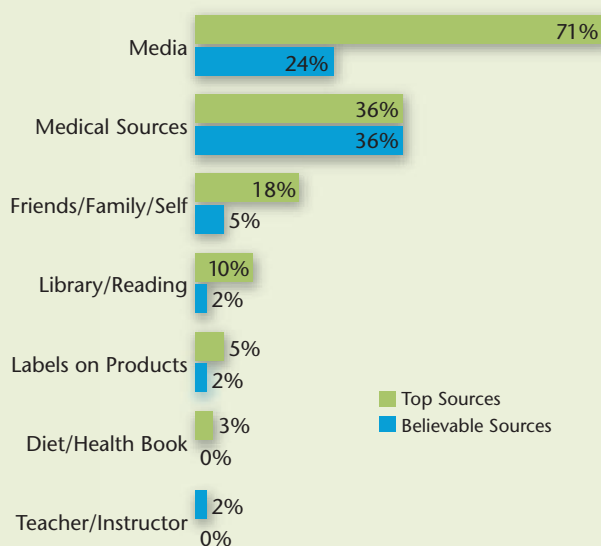
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Awareness and Consumption of Nutrients for Certain Health Benefits

Diet and Health Relationship	Awareness of Relationship	Already Consuming	Likely or Somewhat Likely to Consume
Soy protein/soy, found for example in soy-based products such as meat alternatives, nutritional bars, and beverages such as soymilk, for reduced risk of heart disease (n=497)	55% (n=276)	28%	49%
Probiotics, found for example in yogurt and other products fortified with beneficial cultures, for maintaining a healthy immune system (n=503)	54% (n=271)	37%	48%
Omega-3 fatty acids, found for example in seafood, fish oil, or fortified foods, for cognitive development, especially in children (n=503)	53% (n=265)	41%	46%
Lutein, found for example in spinach and fortified foods and beverages, for maintaining eye health (n=497)	52% (n=257)	39%	50%
Lycopene, found for example in processed tomato products, such as tomato sauce, for the reduced risk of prostate cancer (n=503)	49% (n=246)	43%	42%
Prebiotic fiber, found for example in certain fruits and vegetables and fortified foods, for maintaining a healthy digestive system (n=497)	48% (n=239)	37%	55%
Soy protein/soy, found for example in soy-based products such as meat alternatives, nutritional bars, and beverages such as soymilk, for reduced risk of cancer (n=503)	47% (n=234)	25%	50%
Herbs and spices used to season foods, for example, cinnamon, red pepper, and oregano, for reduced risk of chronic diseases and/or weight management (n=503)	46% (n=230)	49%	46%
Plant sterols, found for example in fortified foods and beverages, including table spreads, juices, and yogurt, for reduced risk of heart disease (n=497)	30% (n=150)	37%	50%
Xylitol, found for example in sugar-free chewing gums, for maintaining good oral health (n=497)	29% (n=145)	31%	52%
For each of the following food components or nutrients, please tell us whether you are aware that that food component or nutrient is thought to be beneficial for the specified health condition (split sample). If aware, please indicate how likely you are to begin eating each of the following food components or nutrients for the specified health condition in the next 12 months.			



Top Sources vs. Most Believable Sources of Health and Nutrition Information



What are your top two or three sources of information about health and nutrition? (Multiple Response, Unaided) (n=1000)

Who or what would you say is the most believable source for information on the health benefits of food or food components? (Multiple Response, Unaided) (n=1000)

Communication and Sources of Information on Health and Nutrition

The mass media continue to be Americans' top source of information on health and nutrition (unaided). Similar to 2005, nearly three-quarters of Americans name the news media (71 percent), especially electronic media outlets such as the Internet (52 percent) and television news (27 percent), as their top source of information about health and nutrition. Roughly a third of all consumers name medical sources (36 percent), including physicians (35 percent), as a top source of information on health and nutrition. However, this reflects a significant decrease from 2005 (44 percent medical sources with 43 percent physicians).

Although Americans may look to the media for information on health and nutrition, they do not consider this to be the most credible source. Similar to 2005, many consumers (36 percent) name medical sources such as physicians, nutritionists, and dietitians as the most believable providers of information on the health benefits of food or food components (unaided). However, the mass media remain a credible source among nearly a quarter of all consumers (24 percent vs. 23 percent in 2005 and 2002, 22 percent in 2000, and 29 percent in 1998).



When asked to rate specific sources of information that impact their decision to try a food or food component, Americans continue to rate health professionals as the most influential (84 percent cite either a "moderate" or "great extent"). Dietitians (76 percent) and health associations (74 percent) are also very influential. The food

label is significantly more influential (62 percent vs. 49 percent in 2005) and Internet articles were rated for the first time as having an impact at 58 percent.

More Findings of Interest:

- Unaided, Internet or Web sources continue to be credible sources of information on the health benefits of food or food components (15 percent in 2007 and 13 percent in 2005).
- Medical sources have the highest credibility among 65+ year olds (56 percent vs. 35 percent of 55-64 year olds, 32 percent of 35-54 year olds, 34 percent of 25-34 year olds, 31 percent of 18-24 year olds). Mass media sources have the highest credibility among those who “strongly agree” that foods have benefits beyond basic nutrition (29 percent vs. 19 percent “somewhat agree” and 19 percent “disagree”) and consumers under the age of 35 years (29 percent of 18-24 year olds and 27 percent of 25-34 year olds vs. 17 percent of 65+ year olds).
- Sources of information cited as having more of an impact (either a “great” or “moderate extent”) on Americans’ decision to try functional foods or food components, compared to 2005, include the food label (62 percent vs. 49 percent in 2005), health associations (73 percent vs. 63 percent), government officials (40 percent vs. 29 percent), TV news program (54 percent vs. 37 percent), newspaper (44 percent vs. 35 percent), and magazine articles (53 percent vs. 45 percent).
- Consumers who are most likely to find health professionals influential are those who perceive food/nutrition to have a “great role” in overall health (89 percent vs. 75 percent “moderate” and 50 percent “no or a little” role), those who are primary household grocery shoppers (88 percent vs. 78 percent other), supplement users (87 percent vs. 80 percent non-users), and older consumers (88 percent of those 65+ years, 87 percent of those 55-64 years, and 86 percent of those 35-54 years vs. 74 percent of those 18-24 years).



Nutrigenomics/“Personalized Nutrition”



Continuing the roster of questions added in 2005 regarding nutrigenomics, consumers were asked how much they have heard or read about using individual genetic information to provide personalized nutrition or diet-related recommendations. Results indicate that awareness is on the rise. The number of Americans in 2007 (25 percent) knowing “a lot”

or “a fair amount” about this practice increased significantly from 2005 (18 percent). Those knowing “a lot” remained stable, but consumers stating they know “a fair amount” rose significantly from 13 percent in 2005 to 21 percent in 2007, and those knowing “nothing” dropped

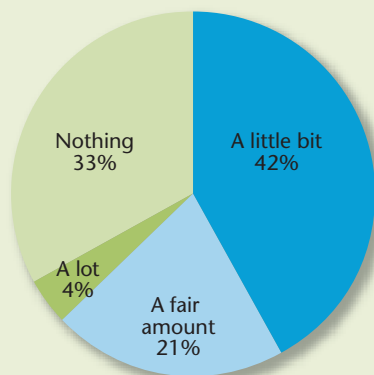
by four points to 33 percent. Americans overwhelmingly continue to prefer the terms “personalized nutrition” (76 percent) and “individualized nutrition” (73 percent) rather than “nutrigenetics” (50 percent) or “nutritional genomics” (40 percent) to describe the practice of using genetic information to develop personalized diet and health recommendations.

In 2007, more Americans express favorability toward the concept of using genetic information to provide personalized nutrition and/or diet recommendations (79 percent vs. 71 percent in 2005), with about one-third (32 percent) saying they are “very favorable.” When asked why they are favorable toward nutrigenomics, “maintaining health and preventing disease” remains the primary reason cited by 18 percent of Americans.

More than three-quarters (77 percent) of Americans are interested in learning more about the use of genetic information to provide nutrition and/or diet-related recommendations to optimize health and reduce the risk of diseases to which they are genetically predisposed

Awareness and Favorability toward “Personalized Nutrition”

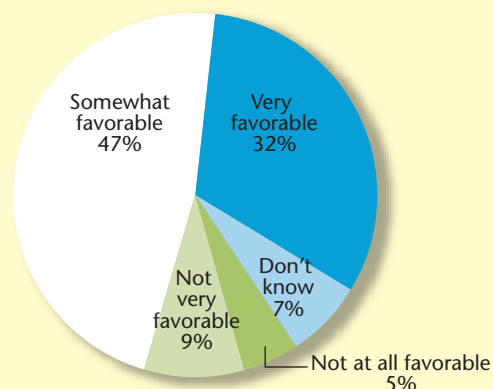
Awareness



Recent advances in science are making it possible to look at an individual's genetic information (i.e. DNA) to determine a wide range of things about that person's current or future health. Genetic information can be used to provide people with important nutrition and/or diet-related recommendations in order to optimize overall health and reduce the risk of diseases to which they are genetically predisposed.

How much, if at all, have you heard or read about this area? (n=1000)

Favorability



In general, how favorable are you toward the idea of using genetic information to provide people with nutrition and/or diet-related recommendations? (n=1000)

(vs. 70 percent in 2005). About a third remain “very interested” (31 percent vs. 28 percent in 2005), slightly more are “somewhat interested” compared to 2005 (45 percent vs. 41 percent), and fewer are “not very” or “not at all interested” (19 percent vs. 23 percent in 2005).

Compared to 2005, slightly fewer consumers say that medical sources, including physicians, nutritionists, dietitians, and other medical professionals, are the most believable information resource on genetics as it relates to diet and nutrition (33 percent vs. 37 percent in 2005). Physicians continue to be the most believable source, although this has decreased (21 percent vs. 28 percent in 2005). Similar to 2005, very few cite dietitians (four percent vs. two percent in 2005) and nutritionists (three percent in both 2005 and 2007) as the most believable source. Other sources cited by less than 10 percent of consumers include news media, medical journals/books, government agency/U.S. Surgeon General, and friends and family.



More Findings of Interest:

- Those who are most likely to know “a lot” or “a fair amount” about nutrigenomics include consumers who believe food and nutrition play a “great role” in maintaining or improving overall health (27 percent vs. 18 percent “moderate role” and 17 percent “limited or no role”), consumers who believe they have “great control” over their health (27 percent vs. 20 percent “moderate control” and 23 percent “no or only a small amount of control”), consumers who “strongly agree” that certain foods have health benefits that go beyond basic nutrition (28 percent vs. 22 percent who “somewhat agree” and 22 percent who “disagree”), consumers who state their overall health is “excellent” (32 percent vs. 19 percent “poor/fair”), college graduates (29 percent vs. 21 percent of those who have a high school degree or less), and consumers with \$100K+ household incomes (36 percent vs. 25 percent \$50-99K, 21 percent \$35-49K, 23 percent <\$35K).
- Americans most likely to have a “somewhat” or “very favorable” opinion toward personalized nutrition are consumers who believe food and nutrition play a “great” (82 percent) or “moderate role” (71 percent) in maintaining or improving overall health (vs. 53 percent “limited or no role”), consumers who state their overall health is “fair/poor” (80 percent), “good” (81 percent), or “excellent” (68 percent).
- Those most likely to be “somewhat” or “very interested” in learning more about nutrigenomics are consumers who believe food and nutrition play a “great” (81 percent) or “moderate role” (67 percent) in maintaining or improving overall health (vs. 38 percent “limited or no role”), primary household shoppers (79 percent vs. 67 percent someone else is primary shopper), supplement users (80 percent vs. 71 percent non-users), and married consumers (80 percent vs. 72 percent single).

Conclusions

This latest research confirms many of IFIC's earlier findings about foods and beverages that provide added benefits and reveals some new trends in consumers' attitudes, beliefs, and behaviors about food and health. Americans continue to have a high level of awareness and interest in "functional foods" and how a personalized nutrition plan that incorporates these foods can help optimize health and reduce the risk of disease. The vast majority of Americans believe that they have some control over their health, with food and nutrition identified as playing a great role in improving or maintaining health, followed by exercise and family history. Heart disease and weight continue to be the top health concerns of Americans, while, cancer, diabetes, and nutrition/diet follow as other important health concerns.

Americans are increasingly aware of specific health benefits associated with various functional foods. Accordingly, consumers are most aware of food/health benefit associations related to their greatest health concerns of cardiovascular disease, weight maintenance, and cancer, as well as those that have been well-established and promoted over time, such as calcium for bone health. Still, newer food associations have entered the minds of some Americans, including health benefits related to probiotics and soy/soy protein. However, as in past surveys, consumers more easily identify whole foods that are generic in nature and fall into a wide spectrum of non-descript categories such as "vegetables," "fruits", or "dairy foods." In some respects it is not surprising that consumers more readily mention certain foods or food categories that contain healthful components rather than the components themselves. For example, consumers may identify fish, fish oil, certain nuts, and flax as being "good" for their hearts and other conditions, but they may not be able to articulate that omega-3 fatty acids are the



healthful component that they all have in common. Cross-promotion of foods containing specific components can be helpful and may contribute to increased consumer awareness and consumption over time.

The emerging science of nutrigenomics—preferentially called "personalized nutrition" by most consumers—was explored again in this latest survey after being introduced in 2005. Americans are increasingly open to the concept of genetic information being used to provide personalized nutrition recommendations. This survey found that Americans report a greater knowledge of this new development and they are interested in learning more.

Results from the *2007 IFIC Foundation Food & Health Survey* indicate that two-thirds of Americans are making changes to improve the healthfulness of their diet. However, Americans exhibit a "less is more" mindset. Both the *Food & Health Survey* and this latest research reveal that consumers are likely to make changes that involve eating less of specific foods/beverages or food components rather than adding more healthful foods, such as functional foods, to the diet. The majority of Americans report they are consuming certain foods and food components for health benefits related to bone health, cardiovascular disease, and cancer, while more are willing to begin eating specific foods and food components for these and other health benefits.

The majority of Americans believe in the concept of functional foods and their interest in learning more about foods and their relationships with specific health benefits remains strong. The findings from this latest research suggest that today's consumers are primed for information about foods that provide benefits beyond basic nutrition and how to incorporate these foods into their diet. They are already making changes to improve the

healthfulness of their diets in an effort to reduce risk of disease, yet still more can be done to increase their knowledge about the benefits of specific foods and food components and their consumption. This research pres-



ents a window of opportunity for nutrition and health professionals to communicate the potential health benefits of foods and food components and how they may be associated with the practice of “personalized nutrition.” Both the news media and health professionals are looked upon as sources of credible and influential information

related to the role of functional foods in health and disease. Health professionals, educators, and journalists can seize this opportunity to deliver more personalized nutrition messages that help consumers enjoy health-promoting foods as part of an overall healthful lifestyle.

For more information about functional foods, including specific components and consumer research reports from previous years, visit:
www.ific.org/nutrition/functional.

Guidelines for Communicating the Emerging Science of Dietary Components for Health

Americans acquire health and nutrition information from numerous sources. With more and more information coming from mass media, it is important for everyone in the communication chain to provide consistent and scientifically accurate information. To aid in this process, the IFIC Foundation partnered with the Institute of Food Technologists (IFT) to develop the *Guidelines for Communicating the Emerging Science of Dietary Components for Health*. These *Guidelines* include a checklist for communicators to help enhance the public’s understanding of foods, food components, and dietary supplements and their role in a healthful lifestyle.

Communicators, ranging from health professionals, educators, scientists, scientific journal editors, government officials, and journalists, should consider these points when translating how the latest research about food and nutrition could change what’s on the public’s plate:

- Serve up plain talk about food and health.
- State that scientific research is evolutionary, not revolutionary.
- Carefully craft communications.
- Make messages meaningful.
- Cite study specifics.
- Point out the peer-review process as a key measure of a study’s objectivity.
- Consider the full facts when assessing a study’s objectivity.

For more information on the *Guidelines*, visit:

www.ific.org/nutrition/functional/guidelines

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