Executive Summary
In 2005, the International Food Information Council (IFIC) commissioned its fourth survey studying Americans’ attitudes toward foods that provide health benefits beyond basic nutrition, also known as “functional foods.” Such health-promoting foods can range from broccoli to fortified foods such as calcium-fortified orange juice, to soy-based products to dietary supplements.

Building on research dating back to 1996, this latest round of research was designed to measure and track changes in consumer awareness and interest in functional foods, and to explore factors that impact behavior and perceptions, particularly the barriers and catalysts to eating more healthful foods. A new objective for the 2005 research was to measure consumer awareness and attitudes toward using individual genetic information to provide people with personalized nutrition and diet-related recommendations in order to optimize overall health and reduce the risk of disease. This emerging field is also known as nutrigenomics, or “personalized nutrition.”

Recent health and nutrition advice from the United States (U.S.) government emphasizes the need for Americans to include more healthful foods in their diets. Understanding consumers’ attitudes, awareness, and interest in these foods offers health professionals, educators, and journalists important advantages. Communications that consider the latest consumer perspective can help all food and nutrition communicators better connect with consumers and guide them to make informed and healthful food choices.
IFIC commissioned Cogent Research of Cambridge, MA to conduct two consumer research studies. The first of the two studies was fielded May 6-12, 2005. This was a 20-minute Web-based quantitative survey of 1,012 adults, ages 18 years and older. The findings were weighted by education, age, and ethnicity to the 2003 U.S. population census estimate to allow the findings to be representative of the American public, as a whole.

The second study was conducted August 9-11, 2005 with 27 participants using CoRe Boards™, a Web-based focus group technique. This online discussion board methodology provided participants with a private access, moderator-controlled chat room where certain issues that emerged in the quantitative research could be probed in more depth. Participants were at least 18 years or older and were selected based on their basic understanding and interest in learning more about functional foods. While the findings of qualitative research provide useful insights and allow researchers to probe deeper into consumers’ perceptions and beliefs, the results cannot be projected on to the entire U.S. population.

This research report highlights key findings from the Web-based quantitative survey and adds insights from the qualitative focus groups to increase understanding of consumer attitudes and 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, and dietary supplements.”
Attitudes toward Health and Nutrition

Consistent with previous surveys, the majority of U.S. consumers remain confident that they have a “great amount” of control over their own health. To maintain or improve their health, consumers overwhelmingly still believe food and nutrition play the greatest role, even more so than exercise or family history. A key finding in the 2005 survey is that Americans’ health concerns have shifted since 2002. Heart health continues to lead the list of top health concerns, but weight management has surpassed cancer for the first time as a major health concern, climbing to number two with cancer now following as third. Diabetes follows as the fourth largest health concern.

A new open-ended question asked consumers about changes they have made over the past five years to improve their overall well-being. One-third said they have started exercising and almost as many (29 percent) have made changes to their diet. Ten percent reported weight loss over the past five years. Other changes, made by five percent of Americans, included eating more fruits and vegetables, consuming less fat, and taking vitamins or supplements.

“My mother’s heart attack has motivated my entire family to watch their health. We all changed our diets and have been much more health conscious.”

(male, 34)

Delving further into diet, consumers were then asked to identify specific dietary changes they are making. These changes were categorized as either additions or reductions. Americans are continuing to reduce their intake of foods and ingredients perceived as less healthful as a way to improve or maintain their health (52 percent in 2005, 54 percent in 2002, and 55 percent in 2000). In contrast, fewer were adding healthier foods in 2005 (25 percent), compared to 2002 (35 percent) and 2000 (36 percent). They reported a wide variety of “functional foods” that they were adding to their diets, which contain desired food components like soy, lycopene, antioxidants, fiber, and calcium. Consistent with previous surveys, 25 percent of consumers reported making no changes to their diet in an effort to improve or maintain their health.

Continuing the trend from the past two surveys, most...
consumers (88 percent) agree that certain foods have health benefits that go beyond basic nutrition and may reduce the risk of disease or other health concerns. The qualitative online focus groups indicate that these beliefs stem primarily from hearing or reading information about a food’s health benefit and secondarily from personal experience. Yet, the number of Americans who “strongly agree” that certain foods may have additional benefits has dropped to 46 percent in 2005, compared to 62 percent in 2002, 59 percent in 2000, and 61 percent in 1998. Contributing factors to this decline also emerged in the qualitative research. Consumers stated feeling confused about the vast amount of conflicting research that they see every day, they are recognizing more and more the role that family health history plays in health, and many state they still possess insufficient knowledge about foods and their benefits.

“I believe certain foods may help reduce risk or control certain diseases because if, for example, a person drinks milk products, the calcium helps promote healthy bones.”
(female, 53)

<table>
<thead>
<tr>
<th>Reductions</th>
<th>Additions</th>
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</thead>
<tbody>
<tr>
<td>19% Trying to consume less fat</td>
<td>17% Eating more vegetables</td>
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<tr>
<td>9% Reducing sugar intake</td>
<td>9% Eating more sugar</td>
</tr>
<tr>
<td>8% Stopping or reducing junk/fast food intake</td>
<td>8% Stopping or reducing fried food intake</td>
</tr>
<tr>
<td>6% Eating less meat</td>
<td>5% Reducing salt intake</td>
</tr>
<tr>
<td>3% Drinking less soda</td>
<td>2% Lowering dietary cholesterol intake</td>
</tr>
<tr>
<td>2% Stopping or reducing alcohol intake</td>
<td>1% Stopping or reducing junk/fast food intake</td>
</tr>
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</table>

More Findings of Interest:

- U.S. consumers who are most likely to cite the importance of nutrition as playing a “great” role in maintaining or improving their health are those who state that their overall health is “excellent” (79 percent vs. 58 percent of those who state their health is “fair” or “poor”), supplement users (72 percent vs. 60 percent of non-users), college graduates (77 percent vs. 68 percent with some college and 64 percent of those with high school or less), and those with higher incomes (73 percent of those with an income of $50,000 or more vs. 66 percent of those with an income of less than $50,000).

- More Americans believe that family health history plays a “moderate” to “great” role in maintaining and improving health in 2005 (91 percent) than in previous years (82 percent in 2002, 80 percent in 2000, and 85 percent in 1998).

- The percentage of Americans mentioning weight as a top health concern has doubled since 2002. Consumers most likely to mention weight are those with a college degree or higher (41 percent vs. 27 percent of those
with high school or less), females (40 percent vs. 27 percent of males), and consumers aged 18-34 (42 percent vs. 34 percent of those 35-44 years and 25 percent of those 55 years and older).

- Fat consumption has continued to decline in importance. In 1998, over one-third (36 percent) of Americans reported they were trying to consume less fat. By 2005, this has declined to only one in five (19 percent).

- Women in the U.S. are more likely than men to be improving their diet through adding healthful foods (30 percent vs. 20 percent), while men and women are equally likely to be reducing their consumption of those foods or ingredients perceived as less healthful (50 percent and 54 percent, respectively). Primary shoppers (53 percent) are much more likely to be reducing their intake of those foods perceived as less healthful compared to those who share or have no role in food shopping (39 percent).

- Although reducing carbohydrate consumption emerged as a specific diet change for the first time in 2005, with nearly one in ten (8 percent) saying they are consuming less carbohydrate; only one percent of Americans specifically reported this change when asked about changes they have made to improve overall well-being.

"You certainly have to be careful about what research conclusions you believe. Sometimes it takes years for an initial finding to be established and confirmed or finally debunked.”

(male, 44)

Awareness and Interest in Functional Foods/Foods for Health

Nine out of 10 Americans are able to name a specific food and its associated health benefit. This represents a steady increase compared to 84 percent in 2002, 82 percent in 2000, and 77 percent in 1998. The top foods and components mentioned by consumers include fruits and vegetables, milk, fish/fish oil or seafood, broccoli, fiber, tomatoes, green leafy vegetables, whole grains, garlic, oranges/orange juice, oats, and green tea. The top disease/health concerns associated with these foods and components parallel Americans’ top health concerns, with cardiovascular disease and cancer mentioned most frequently (55 percent and 44 percent, respectively), followed by bone health/osteoporosis (25 percent), general or overall health (20 percent), and weight maintenance (10 percent), among others.

Compared to 2002, U.S. consumers who are aware of a link between a specific food and health benefit are more likely to actually be consuming the food with a health benefit in mind. For example, seven percent of consumers named oats and their association with cardiovascular disease, and nearly as many (5 percent) are actually consuming oats for heart health. Only half or fewer who were aware of the associations in 2002 were actually consuming the food.

When prompted with a specific health concern, consumers were then asked to name a food or food component believed to reduce the risk of that disease or condition. Significant increases from the previous study were observed in correct mentions of specific foods for
osteooporosis/bone health, urinary tract infections, colon cancer, digestion and intestinal health, high cholesterol/heart disease, and prostate cancer. Awareness of food associations with other diseases and conditions, including arthritis, aging, menopause, diabetes, high blood pressure, and breast cancer, continues to lag behind.

Consumer awareness of long-held associations between food and health remains high. In the quantitative research, consumers were prompted with a list of diet and health relationships. Then, they were asked whether they were aware that a specific component or nutrient associated with various food examples is beneficial for a specific health concern. Awareness of the relationship between calcium and bone health is highest, followed by fiber for maintaining a healthy digestive system. Relationships gaining awareness include antioxidants for protection against free radical damage, omega-3 fatty acids and other healthful fats for reduced risk of heart disease, and lycopene for reduced risk of prostate cancer. Food associations of which Americans are less aware include plant sterols for reduced risk of heart disease, probiotics for maintaining healthy immune and digestive systems, soy protein for reduced risk of heart disease, and xylitol for maintaining good oral health. Please see the chart titled “Awareness and Consumption of Nutrients for Certain Health Benefits” for more information.

Consumer interest in learning more about foods for better health remains high. More than eight out of 10 (83 percent) Americans are interested in learning more about foods that have health benefits that go beyond basic nutrition and may reduce the risk of disease or promote better health. Those who are “very interested” in learning more about healthful foods are those who feel that food and nutrition play a “great role” in overall health (45 percent vs. 40 percent of those who say it plays a “moderate role,” and 22 percent of those who stated “no role”), and are more likely to be vitamin/supplement users (49 percent vs. 27 percent of non-users), consumers with college degree or higher (49 percent vs. 38 percent of those with some college or less), and consumers aged 35-54 (48 percent vs. 41 percent of those aged 18-34 and 35 percent of those 55 years and older).

More Findings of Interest:

- More women than men (93 percent vs. 89 percent) are able to name a specific food and its associated health benefit.
- Americans continue to name fruits and vegetables overwhelmingly as foods that can reduce risk of disease. Two-thirds (66 percent) of consumers mention fruits and vegetables either generically or specifically. On an unaided basis, more people in 2005 compared to 2002 mention spinach (3 percent in 2005; 1 percent in 2002), tomatoes (9 percent in 2005; 6 percent in 2002), cranberries (4 percent in 2005; 1 percent in 2002), and blueberries (3 percent in 2005; 1 percent in 2002). Other foods and components with more mentions in 2005 compared to 2002 include milk (11 percent vs. 6 percent), fiber (10 percent vs. 6 percent), and green tea (7 percent vs. 1 percent).
- Supplement users in the U.S. show a higher awareness of most diet-health relationships.
- Consumers 35 years and older are more aware of antioxidants for protection against free radical damage (84 percent vs. 66 percent 18-34 years), fiber for reduced risk of cancer (88 percent vs. 71 percent 18-34 years), and omega-3 fatty acids for reduced risk of heart disease (82 percent vs. 69 percent 18-34 years).
- About three-quarters (73 percent) of consumers either have no concerns (70 percent) about foods associated with health benefits or say they do not know of any concerns (3 percent), an increase of about seven points over 2002. Among the concerns mentioned by Americans: side effects/drawbacks, changes to taste or smell, misleading because not proven, preservatives/additives, and lack of consumer knowledge. However, none of these concerns were cited by more than four percent of Americans.

“Certain foods contain nutrients that can slow down the progression of certain diseases.”

(female, 52)
### Awareness and Consumption of Nutrients for Certain Health Benefits

<table>
<thead>
<tr>
<th>Diet and Health Relationship</th>
<th>Awareness of Relationship</th>
<th>Already Consuming</th>
<th>Likely or Somewhat Likely to Consume</th>
</tr>
</thead>
<tbody>
<tr>
<td>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=493)</td>
<td>93% (n=460)</td>
<td>63%</td>
<td>27%</td>
</tr>
<tr>
<td>Fiber, found for example in vegetables, fruits, and some fortified foods such as breads and cereals, for maintaining a healthy digestive system (n=519)</td>
<td>92% (n=479)</td>
<td>57%</td>
<td>33%</td>
</tr>
<tr>
<td>Vitamin D, found for example in fortified foods and beverages, for the promotion of bone health (n=519)</td>
<td>88% (n=458)</td>
<td>51%</td>
<td>35%</td>
</tr>
<tr>
<td>Fiber, found for example in vegetables, fruits, and some fortified foods such as breads and cereals, for reduced risk of cancer (n=493)</td>
<td>83% (n=408)</td>
<td>59%</td>
<td>33%</td>
</tr>
<tr>
<td>Whole grains, found for example in whole grain cereals, breads, rice or pasta, for reduced risk of heart disease (n=493)</td>
<td>83% (n=409)</td>
<td>55%</td>
<td>31%</td>
</tr>
<tr>
<td>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=519)</td>
<td>79% (n=409)</td>
<td>55%</td>
<td>34%</td>
</tr>
<tr>
<td>Fiber, found for example in vegetables, fruits, and some breads and cereals, for reduced risk of heart disease (n=519)</td>
<td>78% (n=402)</td>
<td>63%</td>
<td>30%</td>
</tr>
<tr>
<td>Omega-3 fatty acids, found for example in seafood, fish oil, or fortified foods, for reduced risk of heart disease (n=519)</td>
<td>78% (n=406)</td>
<td>43%</td>
<td>39%</td>
</tr>
<tr>
<td>Monounsaturated fats, found for example in olive oil and nuts, for reduced risk of heart disease (n=493)</td>
<td>73% (n=359)</td>
<td>53%</td>
<td>35%</td>
</tr>
<tr>
<td>Potassium, found for example in fruits, vegetables and juices, for reduced risk of high blood pressure and stroke (n=493)</td>
<td>70% (n=346)</td>
<td>54%</td>
<td>34%</td>
</tr>
<tr>
<td>B vitamins, found for example in meats, whole grains, vegetables, and nuts, for reduced risk of heart disease (n=493)</td>
<td>65% (n=321)</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>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=519)</td>
<td>63% (n=328)</td>
<td>43%</td>
<td>25%</td>
</tr>
<tr>
<td>Folate or Folic acid, found for example in fortified grain products and citrus juices, for reduced risk of heart disease (n=493)</td>
<td>61% (n=303)</td>
<td>48%</td>
<td>43%</td>
</tr>
<tr>
<td>Beans, for example pinto, black, and kidney, for reduced risk of heart disease and certain cancers (n=493)</td>
<td>58% (n=287)</td>
<td>53%</td>
<td>29%</td>
</tr>
<tr>
<td>Lutein, found for example in spinach and fortified foods and beverages, for maintaining eye health (n=519)</td>
<td>58% (n=299)</td>
<td>42%</td>
<td>40%</td>
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### Awareness and Consumption of Nutrients for Certain Health Benefits

<table>
<thead>
<tr>
<th>Diet and Health Relationship</th>
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<tbody>
<tr>
<td>Lycopene, found for example in processed tomato products, such as tomato sauce, for the reduced risk of prostate cancer (n=493)</td>
<td>57% (n=282)</td>
<td>49%</td>
<td>27%</td>
</tr>
<tr>
<td>Omega-3 fatty acids, found for example in seafood, fish oil, or fortified foods, for cognitive development, especially in children (n=493)</td>
<td>55% (n=272)</td>
<td>45%</td>
<td>34%</td>
</tr>
<tr>
<td>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=493)</td>
<td>54% (n=269)</td>
<td>26%</td>
<td>33%</td>
</tr>
<tr>
<td>Probiotics, found for example in yogurt and other products fortified with beneficial cultures, for maintaining a healthy digestive system (n=519)</td>
<td>49% (n=253)</td>
<td>41%</td>
<td>40%</td>
</tr>
<tr>
<td>Prebiotic fiber, found for example in certain fruits and vegetables and fortified foods, for maintaining a healthy digestive system (n=519)</td>
<td>47% (n=242)</td>
<td>40%</td>
<td>48%</td>
</tr>
<tr>
<td>Probiotics, found for example in yogurt and other products fortified with beneficial cultures, for maintaining a healthy immune system (n=493)</td>
<td>46% (n=227)</td>
<td>48%</td>
<td>34%</td>
</tr>
<tr>
<td>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=519)</td>
<td>41% (n=306)</td>
<td>20%</td>
<td>37%</td>
</tr>
<tr>
<td>Plant sterols, found for example in fortified foods and beverages, including table spreads, juices, and yogurt, for reduced risk of heart disease (n=519)</td>
<td>30% (n=154)</td>
<td>47%</td>
<td>38%</td>
</tr>
<tr>
<td>Xylitol, found for example in sugar-free chewing gums, for maintaining good oral health (n=519)</td>
<td>24% (n=126)</td>
<td>30%</td>
<td>35%</td>
</tr>
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</table>

**Q38-59** 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).

**Q60-81** 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.
Americans’ Consumption of Foods for Health

The number of Americans who are eating foods for their functional health benefits has increased from 72 percent in 1998 to 78 percent in 2005. Nearly 90 percent of those who “strongly agree” that foods can provide a health benefit beyond basic nutrition are eating a certain food for a specific health benefit.

The foods being consumed for specific health conditions mirror consumers’ awareness of diet and health relationships, with most eating specific foods to reduce risk for heart disease and cancer. The foods or components that Americans are most likely to be eating for a specified health condition are fiber for heart disease (63 percent), calcium for bone health (63 percent), and fiber for reduced risk of cancer (59 percent). Please see the chart titled “Awareness and Consumption of Nutrients for Certain Health Benefits” for more information.

“I eat fish frequently for omega-3 and improved cholesterol levels. I use canola oil and olive oil when I can to improve cholesterol levels. I eat tomatoes, blueberries, broccoli, and green vegetables for reducing cancer risks. I drink red wine to improve heart health.”

(female, 58)

The qualitative research revealed that the most common catalyst leading to consumption of specific healthful foods was recognition of family health history, followed by the incidence of a specific disease in the family, and the immediate personal result from eating a specific food or supplement. Compared to these “proactive” catalysts, “reactive” catalysts were stated less frequently. These included a doctor’s specific recommendation or warning or the diagnosis of a specific condition, such as cardiovascular disease.

When consumers in the qualitative research were asked about barriers to eating more healthful foods, the most common barrier named was taste, followed by time to purchase and prepare more healthful meals, the need for more education/knowledge about healthful food components, and socio-economic factors. Related to taste, consumers reported that foods perceived to be “unhealthy,” such as red meat, sweets, and fast foods, taste good and can be “irresistible.”

“It is important for every person to know their family’s health history. My family history is full of heart problems, so I am eating a great deal more veggies.”

(male 22)

More Findings of Interest:

- Supplement users (84 percent vs. 65 percent of non-users) and consumers aged 35 years and older (82 percent of those aged 35-44 years and 86 percent of those aged 55 and older vs. 65 percent of those 18-34 years) are more likely to be consuming a specific food for a known health benefit.

- Consumers aged 55 years and older are most likely to be eating specific foods or components for a specified health condition, including antioxidants for protection against free radical damage; fiber for a healthy digestive system and for reduced risk of cancer; monounsaturated fats for reduced risk of heart disease; potassium for reduced risk of high blood pressure and stroke; probiotics for healthy immune system; whole grains for reduced risk of heart disease; and vitamin D for bone health.

- Insights from the qualitative research reveal that consumers who have added healthful foods to their diet tend to stick with a regimen. Reasons cited for this behavior included experiencing immediate results, belief that a benefit was occurring, and the positive taste of healthful foods.
Communication and Sources of Information about Healthful Foods

Consistent with the previous quantitative research, when given specific terminology, Americans prefer the term “functional foods” (73 percent) over “nutraceuticals” (40 percent) to describe foods that may help reduce the risk of disease or promote health. For the first time in 2005, the term “bioactive food components” was tested. This rated similarly to nutraceuticals in terms of preference (39 percent), far behind functional foods. Qualitative focus groups revealed that most consumers are still unfamiliar with the term “functional foods.” When asked what these foods should be called, many were unable to come up with a specific term or name beyond “healthy” or “good” foods.

When consumers in the online focus groups were asked about other words used to describe certain qualities of food, some consumers reported feeling more favorably about the terms “natural,” “organic,” and “whole” compared the terms “fortified” or “processed.” Although the term “organic” was most often associated with “healthier” foods, many had difficulty explaining why they felt this way about this term.

According to the quantitative research, nearly three-quarters of Americans name the news media (72 percent), especially electronic media outlets such as the Internet (54 percent), as their top source of information on health and nutrition. Fewer than half of consumers (44 percent) name medical sources, primarily physicians, as a top source of information on health and nutrition. Other sources of information include magazines (28 percent), television news (21 percent), friends and family (20 percent), and diet/health books (13 percent).

Although Americans may get their information from the news media, when it comes to credibility, 40 percent name medical sources as the most believable providers of health and nutrition information, compared to 23 percent who consider media outlets most credible. While medical and other health professional sources remain most believable, this represents a seven point decline from 2002. In the qualitative study, doctors and dietitians/nutritionists were also named as the most trusted sources for information regarding health and nutrition. Some consumers stated that journalists can be biased; further, some consumers are frustrated by conflicting information presented in media articles.

“Basically, I get my info from articles I read on the Internet and in the newspaper.”
(male, 45)
When asked to rate specific sources of information that would impact their decision to try a food or food component, 52 percent of Americans rate health professionals as the most influential. Dietitians, specifically, were rated at 41 percent, followed by health associations (20 percent), and food labels (13 percent). Other sources, named by fewer than 10 percent of consumers, include government officials and media sources (newspapers, TV news programs, and magazines).

More Findings of Interest:

- The term “functional foods” is favored by consumers who take supplements (75 percent vs. 64 percent of non-users), are single (81 percent vs. 70 percent of those who are married), and have incomes under $50,000 (80 percent vs. 67 percent of those with an income over $50,000).

- Americans most likely to name the news media as a top source of information on health and nutrition are those who eat at least one functional food to receive a specific health benefit (76 percent vs. 61 percent of those who do not), supplement users (76 percent vs. 63 percent of non-users), and consumers under age 55 (75 percent vs. 66 percent of those 55 years and older).

- Medical sources have the highest credibility among African Americans (49 percent vs. 39 percent of Caucasians), consumers with incomes over $50,000 (43 percent vs. 36 percent of those with an income less than $50,000), and those aged 55 and older, while media outlets (print or electronic) have highest credibility among supplement users (25 percent vs. 18 percent of non-users) and consumers under 55 years (25 percent vs. 18 percent of those 55 years and older).

- About one-quarter (23 percent) of consumers continue to name the media as a believable source. The Internet has seen a rise in credibility (13 percent in 2005 vs. 3 percent in 2002) while magazines have seen a decline (7 percent in 2005 vs. 11 percent in 2002).

“I would call these healthy choice foods because they do promote better health.”
(female, 22)
New on the Horizon: Nutrigenomics/“Personalized Nutrition”

Questions regarding nutrigenomics, the application of genetic science to nutrition and personal health, were added in 2005 to gauge consumer perceptions and interest in “personalized nutrition.” Results indicate that the majority of Americans have heard or read at least a little about using individual genetic information to provide people with important nutrition or diet-related recommendations. Nearly one in five (18 percent) have heard “a lot” or “a fair amount,” while 46 percent have heard “a little bit” and about one-third (37 percent) have heard “nothing” about this practice. Americans overwhelmingly prefer either “personalized nutrition” (70 percent) or “individualized nutrition” (68 percent) rather than “nutrigenomics” (19 percent) as terms for the practice of using genetic information to develop diet and health recommendations.

Yet, most of those who have heard or read something about personalized nutrition can cite only general information on the topic. On an unaided basis, one in four Americans say that personalized nutrition can give people information about the connection between their diet, their genetics, and their health. The remaining responses are vague, with only six percent saying they have heard just “basic information” and another five percent saying it has something to do with genetics.

More than two-thirds (71 percent) of Americans are favorable toward the idea of using genetic information to provide people with personalized nutrition and/or diet recommendations, with nearly one-third (29 percent) saying they are “very” favorable. When asked for their

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**Awareness and Favorability toward “Personalized Nutrition”**

**Q97** 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=1012)

- **Awareness**
  - Nothing: 37%
  - A little bit: 46%
  - A lot: 5%
  - A fair amount: 13%

- **Favorability**
  - Somewhat favorable: 42%
  - Very favorable: 29%
  - Not very favorable: 13%
  - Don’t know: 11%
  - Not at all favorable: 5%

**Q99** In general, how favorable are you toward the idea of using genetic information to provide people with nutrition and/or diet-related recommendations? (n=1012)
primary reason for favorability of this concept, 16 percent of consumers say that it can help Americans stay healthy and prevent future disease. Of those who mention concerns related to this new technology, confidentiality/privacy is cited as their main concern.

“Everybody is different. What’s good for one might not be for another. I think genetics plays a bigger role in your health than any other one thing. Some foods might provide things that reduce risks.”

(male, 46)

The vast majority (70 percent) of Americans are interested in learning more about the use of genetic information to receive nutrition and/or diet-related recommendations to optimize health and reduce the risk of diseases to which they are genetically predisposed. Over one-quarter (28 percent) are “very” interested. More than a third (37 percent) of consumers say that medical sources, including physicians, nutritionists/dietitians, and other medical professionals, are the most believable sources of information on genetics as it relates to diet and nutrition. Other believable sources cited by 10 percent or fewer consumers include researchers/scientists, media, and medical journals/books.

More Findings of Interest:

- Those who are more likely to have heard “a lot” or “a fair amount” about nutrigenomics include supplement users (20 percent vs. 13 percent of non-users), households without children (20 percent vs. 13 percent of those with children), and the highest educated consumers (37 percent of those with graduate education vs. 22 percent of college graduates, 19 percent of those with some college, and 11 percent of high school graduates).

- Americans most likely to be “very” favorable toward the idea of personalized nutrition are supplement users (32 percent vs. 23 percent of non-users).

- Those most likely to be “very” interested in learning more about nutrigenomics are supplement users (32 percent vs. 20 percent of non-users), consumers with highest education (38 percent of those with graduate or professional degrees vs. 31 percent of college graduates and 26 percent of those with high school or less), and higher-income consumers (32 percent of those with an income $50,000 or more vs. 25 percent of those with an income less than $50,000).

“Motivation for me would result from a better understanding of the reasons some foods are better or worse for me.”

(male, 65)
This latest research confirms many of IFIC’s earlier findings—that Americans are overwhelmingly aware and accepting of “functional foods”—yet also uncovers some new trends in consumers’ attitudes, beliefs, and behaviors about food and health. The vast majority of Americans continue to 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. Additionally, significantly more Americans are consuming at least one functional food compared to when the survey began in 1998. Since 2002, Americans’ health concerns have shifted with concern about body weight surpassing cancer concerns for the first time. Consistent with previous surveys, the majority of Americans express a strong interest in learning more about foods for health and their relationships with specific diseases.

The term “functional foods” is accepted and understood by nutrition professionals, yet it has become clear that consumers do not relate to this term as a way to describe foods for health. Adding this terminology to nutrition and health communications may introduce another layer in an already complex environment. Research reveals that consumers more easily identify whole foods, such as fish, milk, broccoli, and tomatoes, as providing health benefits beyond basic nutrition rather than nutrients in isolation. These well-known “good-for-you” foods were joined in this latest research by foods such as whole grains, which are getting more coverage by news media and through government dietary guidelines. For example, the 2005 Dietary Guidelines for Americans and MyPyramid recommendations stress the importance of eating whole grains, which may account for the increased awareness of the benefits of whole grains revealed in this quantitative research.

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:
New to the 2005 survey were questions related to the emerging science of nutrigenomics or personalized nutrition. The concept of using genetic information to provide personalized nutrition recommendations was favorably received by the majority of Americans, who are interested in learning more.

There are both challenges and opportunities in communicating the potential health benefits of foods and food components and how they ultimately may be associated with the practice of “personalized nutrition.” Today’s consumers continue to be interested in learning more about how food choices may help reduce the risk of disease. However, there is also continued confusion and frustration with conflicting information from multiple sources and knowledge gaps about the benefits of specific foods and food components. Research reveals that consumers are primed for personalized messages about foods that provide benefits beyond basic nutrition and how to incorporate these foods into their diet. Building on this finding and the fact that most Americans feel hopeful and curious about emerging science, a door is open for communicators to deliver more personalized nutrition information that helps consumers enjoy health-promoting foods as part of an overall healthful lifestyle.

For more information about functional foods/food for health, including consumer research reports from previous years: www.ific.org/nutrition/functional.

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