

FOOD Insight™

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This for My Heart and This for My Bones: Food Conscious Consumers are Looking Beyond Basic Nutrition

Have you ever wondered what's on the minds of consumers as they shop in the grocery store? Research from the International Food Information Council (IFIC) and the IFIC Foundation suggests that it's more than just what's for dinner that consumers care about. In fact, many have a host of interests like heart health, stronger bones, digestive health, and cholesterol counts on their minds as they push their cart through the grocery aisles.

The IFIC Foundation Food & Health Survey is the latest in an annual series of surveys designed to provide ongoing insights into how consumers view their own diets, their efforts to improve them, and their understanding of the components they incorporate into their diets. In 2007, new questions were asked to explore consumer awareness and interest in foods and beverages with added health and wellness benefits that may contribute to physical health or a sense of wellbeing.

The majority of Americans (80 percent) rate their health status as "excellent" or "very good," yet 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 also perceive room for improvement. In fact, almost two-thirds of Americans say they are making changes to improve the healthfulness of their diets in an effort to improve overall wellbeing (70 percent), physical health (65 percent), and to lose weight (70 percent). Some Americans are making changes to improve the healthfulness of their diet by increasing consumption of specific foods and beverages (36 percent).

The majority of consumers believe in benefits offered by specific foods and beverages, including improving heart health (80 percent); maintaining overall health and wellness (77 percent); improving physical energy or stamina (76 percent); and improving digestive health (76 percent), among others. More than 80 percent of Americans say they are currently consuming or would be interested in consuming foods or beverages for these added benefits as well as others.

When it comes to making purchase decisions, taste still rules. However, since the 2006 survey, significantly more consumers cite the healthfulness of a product (65 percent) as a factor that influences their decision to purchase a food or beverage—behind taste (88 percent) and price (72 percent). Convenience was also mentioned by 55 percent of consumers.

Therefore, products that are both healthful and convenient and yet also provide great taste will likely be those most accepted by consumers.

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Putting Antibiotic Use into Perspective



For more than 50 years, veterinarians and producers have administered antibiotics to food animals, primarily poultry, swine, and cattle, mostly to fight or prevent diseases. The practice has not been without controversy, with some going so far as to call for eliminating antibiotic use in livestock altogether, characterizing it as too risky for public health. On the other side, many believe at least as strongly that not treating diseased animals carries significant risk for people's health, in addition to a real set-back in animal welfare.

Experts do agree that as the global population and mobility of humans and animals grow so does the threat of zoonotic pathogens (those that infect both animal species and humans) like prions, Salmonella and the Avian Influenza virus. And studies show that sick animals carry more zoonotic pathogens, like Salmonella, with them to the slaughter house. Most contend that these facts and the need to protect animal welfare make a strong case for the availability of approved vaccines and antibiotics to prevent and treat livestock diseases.

Antibiotic Residues in Meat and Milk?

While treating sick animals with antibiotics may sound reasonable to the public and consumers, they still have questions about their

use in livestock as it relates to their health. Questions, such as, "Are there residues of antibiotics in milk and milk products, and can they harm me?" often arise. The short answer is: There are no antibiotic residues of any consequence to human health when antibiotics are used according to FDA regulations. When administering antibiotics, producers must adhere to FDA's "withdrawal time" that is specific to the antibiotic used to ensure that the antibiotic has cleared the animal's system to a safe level before any meat or milk enters the food supply. Therefore, producers must withhold animals and their products from the market until the withdrawal time has elapsed.

As an added level of consumer protection, FDA, USDA and processors regularly sample milk and meat to ensure that producers are adhering to all requirements. For example, every tanker of milk is tested and any found to be in violation is discarded and never reaches the consumer. Regulatory actions and stiff fines can be levied against producers found to be noncompliant.

What about Antibiotic Resistance?

Many consumers also wonder if antimicrobial resistance, as it relates to meat and milk, is something about which they should be concerned.

The scientific complexity of this issue makes it difficult for easy answers. The bottom line is that scientific evidence must drive the decisions on the use of antimicrobials in the food system as well as in people to help ensure not only safe food but also an effective arsenal of antibiotics to fight disease-causing pathogens.

FDA plays a major role in addressing antimicrobial resistance by carrying out a stringent drug approval process. Companies are required to provide data and assess the risks that the drug would foster antimicrobial resistance in animals or transfer to humans via food. Based on the findings, FDA has authority to deny the application or to restrict the antibiotic's use in various ways, such as restricting use in different species and diseases to minimize risks. In addition, several U.S. agencies work together through the National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS) to monitor resistance trends and changes in antibiotic susceptibilities of foodborne pathogens.

IFT Report

To analyze the food sector's potential contribution to antimicrobial resistance, the Institute of Food Technologists (IFT) created an expert panel, chaired by Michael P. Doyle, PhD, from the University of Georgia, to take an exhaustive look at the issue. Released in 2006, this comprehensive report, "Antimicrobial Resistance: Implications for the Food System," summarizes recent scientific findings and presents science-based recommendations to help policymakers and food industry stakeholders. (http://members.ift.org/IFT/Research/IFTExpertReports/antimicrobial_report.htm)

Bacteria have an innate ability to adapt to environmental stressors—quite simply, it's their survival mechanism. Expose bacterial populations to a stressor like a lethal antimicrobial, and if a few are

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“Availability of antibiotics has radically improved human and animal well-being.”

– Michael P. Doyle, PhD, University of Georgia

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Putting Antibiotic Use into Perspective

present that have a genetic make-up that is impervious to that particular antimicrobial, they may survive and grow. Studies also show that resistant organisms may spread even without the presence or use of an antimicrobial.

Does this mean there’s a risk of illness from eating poultry, pork, beef or dairy products tainted with bacteria that have become resistant? Does this signal a change in food safety procedures, such as discontinuing antibiotic use in food animals?

Not so fast to judgment, cautions the IFT report. “Availability of antibiotics has radically improved human and animal well-being,” says Doyle. “The key with present scientific knowledge,” Doyle emphasizes, ‘is prudently using antibiotics and continuing with science-based efforts to reduce this risk even lower than it is today. Experience shows that eliminating antibiotic drugs from animal production may have little positive effect on resistant bacteria that threaten human health.’ In Europe, for example, the elimination of antibiotic uses in certain cases did not seem to reduce the prevalence of some antibiotic resistant strains affecting human medicine. Quite the opposite—some pathogens even have increased resistance, concluded the IFT report.

Although food can be contaminated with bacteria, some of which may be resistant, we do not know the extent to which antibiotic use in food animals actually leads to clinically important antibiotic-resistant infections in people. Doyle points out, “Extensive research, however, has shown that prior human exposure to antibiotics is a major risk factor for acquiring an infection with resistant bacteria.” Physicians and consumers, then, have a responsibility to use antibiotics prudently and only when appropriate, in the same manner that veterinarians and producers prudently use antibiotics.

The IFT panel stated that decisions on current or future antimicrobial use in livestock must be based on risk assessments. Moreover, the report states that “applying interventions to control foodborne pathogens in general, rather than focusing specifically on antibiotic-resistant strains, would have the greatest impact in reducing overall foodborne illness.”

“Like with so many complex issues, there isn’t a silver bullet that solves the antimicrobial resistance issue,” the panel said. The strategy should continue to grow as a multi-layered one of research, prudent use of antimicrobials, reduction of foodborne pathogens overall, and proper food handling.

For more information see the new IFIC Foundation Q&A “Questions and Answers: Animal Antibiotics, Antimicrobial Resistance and Impact on Food Safety” at: <http://www.ific.org/publications/qa/animalantiqua.cfm>



This is For My Heart and This for My Bones

These highlights from the *IFIC Foundation 2007 Food & Health Survey* supplement a larger consumer research project that looks at consumer attitudes toward foods that provide a health benefit beyond basic nutrition, or “functional foods.” Such health-promoting foods can range from broccoli to fortified foods, such as calcium-fortified orange juice, to soy-based products to nutritional supplements. The *2007 IFIC Functional Foods/Foods for Health Consumer Trending Survey*, a quantitative Web-based survey of 1,000 U.S. adults 18 years and older, marks nearly a decade of IFIC consumer insights in this area of food and nutrition.

consumers were cardiovascular disease (CVD) and cancer, with concerns about being overweight a distant third. Now, in the age of obesity hyperawareness, weight has climbed to the number two health concern for consumers, just behind CVD. However, the percent of consumers mentioning weight as a top health concern has remained stable with 33 percent of consumers concerned in 2007 versus 34 percent of consumers in 2005. Heart-related and circulatory conditions, including general heart health, blood pressure, stroke, and high cholesterol remain top health concerns of consumers overall at 53 percent; cancer, coming in third, is mentioned by 24 percent of consumers.

A majority (63 percent) of Americans remain confident that they have a “great amount” of control over their own health. Consumers overwhelmingly believe food and nutrition play “a great role” in maintaining or improving overall health (75 percent) and are interested in learning more about the healthful components in food (83 percent). Additionally, consumers believe that exercise and family genetics also play a role in maintaining or improving their health.

Whole Foods versus Specific Food Components

As in past surveys, consumers more easily identify certain foods, such as fish, milk, broccoli, and carrots, as providing a benefit to their health beyond basic nutrition. These foods, along with whole grains, green tea, and certain herbs and spices, are getting more coverage in the environment through media stories, advertisements, food labels, health professionals, and other channels of consumer communication.

When asked on an unaided basis, the top 10 “functional foods” that consumers named in the 2007 quantitative survey were:

1. fruits and vegetables
2. fish, fish oil, seafood
3. milk and other dairy products
4. whole grains, including oats, oat bran, and oatmeal
5. fiber
6. green tea
7. meat
8. water
9. certain herbs and spices
10. nuts

“Our survey results show that consumers want to make wiser dietary choices based on a desire to improve their overall well-being and their physical health,” said Wendy Reinhardt Kapsak, MS, RD, and director of health and nutrition for IFIC. “Consumers may not be able to tell you exactly what nutritional components they’re seeking when they shop for fruits and vegetables or fish, but they can tell you why they’re doing it. It’s because there’s a strong food and health benefit connection at work.”

It is not surprising that consumers more readily mention certain foods that contain beneficial components rather than the components themselves. For example, consumers understand that tomatoes, tomato sauce, strawberries, and watermelon can provide a health benefit, but they may not be able to articulate that lycopene is one of the beneficial components that they all have in common. Cross-promotion of foods containing specific components



Americans' Top Health Concerns

One of the most intriguing findings is how consumers continue to prioritize their health concerns. Prior to 2005, IFIC research found that the top health concerns for

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and nutrients provides consumers with choices and may contribute to increased awareness and consumption over time.

Health, Wellness, and Food Connections

When asked, on an unaided basis, what foods may reduce the risk of disease or improve health, nine out of 10 consumers (92 percent) can name a health/diet pairing relationship. This number has remained relatively stable from 2005 with 91 percent able to name a relationship; however it is up significantly versus 1998, when only 77 percent of consumers were able to name a health/diet pair. Clearly consumers have become more aware of foods and beneficial components that can promote health.

When prompted with a list of nutrients and examples of foods they are found in, the top health/diet pair, mentioned by 89 percent of respondents, was calcium for bone health. Other top pairs included fiber for maintaining a healthy digestive system (86 percent), vitamin D for the promotion of bone health (81 percent), and omega-3 fatty acids for reduced risk of heart disease (76 percent) among others. Consumer awareness of these health/diet pairings can be traced to long-held associations about certain foods as well as increased exposure to messages about components of food where science has evolved to show health benefits.

Some health/diet pairings that are gaining awareness among consumers include probiotics for maintaining a healthy digestive system (58 percent vs. 49 percent in 2005) and immune system (54 percent vs. 46 percent in 2005), and soy protein/soy for reduced risk of heart disease (55 percent vs. 41 percent in 2005).

Awareness versus Consumption Behaviors

The level of awareness of health/diet pairs correlates with consumption of these foods. For example, of the respondents who are aware of the link between calcium and maintaining bone health, 56 percent said they are already consuming foods that contain calcium, such as milk, cheese, yogurt, or calcium-fortified foods and beverages. Still, between 47 to 59 percent of consumers are not currently consuming foods or beverages for a specific health benefit, such as improving digestive health, providing higher levels of satiety, or improved immune function, but would be interested in doing so. Clear and concise communication strategies that clarify the benefits of foods and beverages can increase the likelihood that consumers would try a food or beverage to improve their health.

Meeting Consumers Where They Get Their Information

Media outlets, especially the Internet, are the top sources of information about health and nutrition, but people still look to their physician for guidance. Fifty-two percent of respondents get their health and nutrition information from the “Web” or “Internet” followed by their physician (35 percent), television news (27 percent), magazines (26 percent), and friends and family (18 percent). However, when asked on an aided basis who is the most influential source of information regarding food and food components, 56 percent said health professionals, followed by dietitians (44 percent), health associations (37 percent), food labels (23 percent), and Internet articles (17 percent).

As more and more consumers get their health and nutrition information



from the mass media, it is important for everyone in the communication chain to provide the most scientifically accurate information possible. Consumers often say one of the reasons they do not make healthful lifestyle changes is because messages are often conflicting, and they desire more personalized information on how to make diet and physical activity changes that “fit” their lifestyles. This research indicates that consumers are primed for personalized messages about health-promoting foods. Science, coupled with a good understanding of consumer knowledge, is the foundation upon which effective food and health communications are built. Understanding both of these elements is paramount for creating credible messages that will resonate with consumers and ultimately increase their desire for foods that taste great and provide optimum health benefits too.

The more detailed findings from the 2007 IFIC Functional Foods/Foods for Health Survey are available at: <http://www.ific.org/research/funcfoodsres07.cfm>.

Food Safety Concerns Do Not Include Biotechnology: Public Less Wary of Animal Biotechnology

Despite a year of food safety concerns, consumer impressions of food biotechnology remain little changed from previous years. According to research from IFIC's 2007 survey *Food Biotechnology: A Study of U.S. Consumer Trends*, there was little change in the American public's perception of food biotechnology, and those who have an opinion are twice as likely to have favorable-as opposed to unfavorable-impressions.

The survey provides valuable insight into consumer trends by tracking familiarity and perceptions of food biotechnology over time. IFIC has conducted this survey for a decade, adding new questions as science and trends change. This year, in light of increased focus on sustainable food production, several questions on awareness and importance of sustainability were also included.

The survey of 1,000 American adults took place in July 2007, and data were weighted by age and education to be nationally representative.

Overall confidence in the food supply remained at a high level with 69 percent of Americans indicating they were "very" or "somewhat" confident in the food supply compared to 72 percent last year. However, the number of Americans selecting "very confident" decreased from 21 percent in 2006 to 15 percent this year.

Due to this high level of confidence, a sizeable number of Americans (25 percent) cited no particular food safety concern. Of the three-quarters of respondents who listed a specific food safety concern, disease and contamination topped the list at 38 percent; however, the biggest increase was in the "source" category, where

concern about products' origin caused this category to rise from six percent of those citing a specific concern with the food supply in 2006 to 20 percent this year.

Less than one percent mentioned food biotechnology as a specific concern. "The public's attitudes about food biotechnology remained constant despite a year of tremendous media attention on food concerns," said IFIC President and CEO David Schmidt. In fact, overall favorable impressions of plant biotechnology remained little changed in the past year and favorable impressions of animal biotechnology increased from 19 percent in 2006 to 24 percent this year.

Satisfaction with current information on food labels also remained high in 2007. Only 16 percent of consumers felt information was missing, with less than one percent specifically mentioning biotechnology. When informed that FDA requires special labeling only when the use of biotechnology introduces an allergen or when it substantially changes the food's nutritional content, well over half of those polled (61 percent) "strongly" or "somewhat" support the FDA labeling requirements for food produced using biotechnology, while 24 percent were "neutral." This was unchanged from last year's survey.

Findings on animal biotechnology showed nearly half of Americans (46 percent) said they were "somewhat" or "very" likely to buy meat, milk, and eggs from cloned animals if the Food and Drug Administration (FDA) determined they were safe. When the exact same question was asked regarding animals enhanced through "genetic engineering" rather than

"cloning," the number of Americans who were "very" or "somewhat" likely to buy these food products jumped to 61 percent, showing that the terminology used to describe foods produced from biotechnology makes a difference. Both of these figures show an increase from the 2006 survey.

Consumer support continues to correlate with increased awareness about the potential positive impacts of animal biotechnology. Two-thirds of consumers (66 percent) said they had a positive impression of animal biotechnology when informed that "animal biotechnology can improve the quality and safety of food," up from 59 percent in 2006. More than half of Americans (53 percent) reacted positively to the statement "animal biotechnology can increase farm efficiency," up from 36 percent in 2005 and 47 percent in 2006.

Another area of interest in this year's survey included the new addition of questions about sustainable food production. Although Americans use a variety of terms to describe "sustainability," 83 percent equate the term to "long-lasting" or "self-sufficiency." Close to three-quarters of Americans (70 percent), however, say they have heard "nothing" about sustainable food production. When sustainability was defined as a method to "operate in a manner which does not jeopardize the availability of resources for future generations," 63 percent of Americans said they thought it was important. When consumers were asked to rank five factors related to growing crops in a sustainable way, the factor ranked number one was "increasing the production of food staples in the world, thereby reducing world hunger," with "reducing the amount of pesticides needed to produce food" coming in second. Other eco-friendly factors like rainforest conservation and reducing greenhouse gas emissions received lower rankings.

For a copy of the Food Biotechnology report visit: <http://www.ific.org/research/biotechres.cfm>

When It Comes to Dietary Fats Language, Consumers Want a Glass Half Full

Dietary guidance recommends that 20-35 percent of calories come from dietary fats to promote good health and that unsaturated fats (monounsaturated and polyunsaturated) comprise the majority of intake, while saturated and *trans* fat should be decreased. But, is this the recommendation that has been implemented by consumers?

Quantitative consumer research helped illuminate this question. According to the *2007 IFIC Foundation Food & Health Survey*, 72 percent of consumers indicate that they are concerned with both the amount and types of fats they consume, which is up from 66 percent last year. Along these lines, consumers say that they have received the message that *trans* and saturated fats are not good for them. In fact, 75 percent say they are limiting their consumption of *trans* fat, compared to 54 percent in 2006. However, they do not know whether monounsaturated and polyunsaturated fats are “good” or “bad.” As a result, awareness of both of these healthful fats has declined

over the past year, and the number of Americans who say they are trying to consume less polyunsaturated fats increased to 42 percent from 33 percent in 2006!

Qualitative research shows that consumers think that fats are the most confusing nutrient on the nutrition label and therefore they struggle to put this information into practical use. Additionally, the word “fat” has negative connotations for consumers, such as “ugly,” “obesity,” “heart attack,” and “death.” Nevertheless, consumers feel that they should be doing something and they feel that consistent and basic education can help clarify the messages in the environment and increase understanding of the role fats play in health.

Clearly over the past few decades, dietary fat has been thought of in a negative light. Based on this long-held and reinforced belief, consumers report being more concerned about fat than other nutrients. Consequently, the IFIC Foundation evaluated the information consumers have been receiving about fats over

the past decade to help shed light on potential reasons for this. The results were very telling.

The environmental scan looked at Internet information, consumer research conducted by IFIC and others, and media coverage of dietary fats. The scan revealed that consumers are predominately exposed to negative messages about fats, which in turn affect knowledge, attitudes, and reported behavior.

Given overwhelming confusion about how to follow dietary guidance for fats, the IFIC Foundation plans to conduct further research to help close this gap. In the meantime, it will be vital to incorporate the positive rather than just the negative—a concept for which consumers are primed.

The full report of 2007 qualitative and quantitative research, as well as other studies on fats is now publicly available on the IFIC Foundation Web site at: <http://www.ific.org/publications/other/dietaryfatsresources.cfm>.

Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective

At a 2-day launch conference in Washington DC and London, the World Cancer Research Fund and the American Institute of Cancer Research released the Second Expert Report, *Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective*.

The first Expert Report was released in 1997, which was described at the conference as the most comprehensive study of dietary

factors and cancer. The need for this follow-up report includes increased data and the need to integrate epidemiological and basic science. Key considerations cited include: the increased importance of body mass, the increased importance of physical activity, the need to review evidence of fruits and vegetables, the need to examine evidence across the lifespan (including early life), and the need to examine evidence on cancer survival.

The report is positioned as a guide for making global recommendations on cancer prevention. A follow-up report is scheduled for release in November 2008 that will identify policy opportunities to support the report’s recommendations. The report and 10 recommendations are available at: <http://www.aicr.org/site/PageServer>.

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Planning Ahead for National Nutrition Month®

Now is the time to prepare your nutrition education outreach activities for the March 2008 National Nutrition Month®. The American Dietetic Association sponsors this month-long nutrition education and information campaign annually. The campaign is designed to focus on the importance of making informed food choices and developing sound eating and physical activity habits.

The slogan for this year's event is "Nutrition: It's a Matter of Fact." The theme is meant to promote healthful eating to any audience—co-workers, clients, community, school, or others.

Many nutrition communicators schedule presentations and workshops or write newspaper and magazine articles on the benefits of healthful eating and physical activity using National Nutrition Month® as a springboard.

The International Food Information Council Foundation has numerous nutrition and food safety education materials that are ideal for use with National Nutrition Month® activities. By ordering now, you will be assured of receiving the materials that you need in plenty of time for the National Nutrition Month® celebration of one of life's greatest pleasures: enjoying a variety of delicious and healthful foods. These materials are available online at <http://www.ificpubs.org/servlet/StoreFront>.

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