



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Strategies for Food Distribution in the 1990s

Moderator: Dr. Charles Handy, USDA

Consumer Concerns

by

Sue Ann Ritchko
Administrator, Human Nutrition Information Service
U.S. Department of Agriculture

As we focus on the American consumer in the 90s, we may find that we are headed for the "Nervous 90s." With issues such as food safety, the environ, and the health-nutrition link, the public is certainly entering the 1990s a bit confused about information sources and the amount of risk we actually face.

This morning I wish to focus my remarks on these three issues: food safety, environmental concerns, and the health-nutrition link.

In the food safety arena there's really quite a debate going on. While everyone agrees that recent increases in concern have focused on pesticide residues on fruits and vegetables and drug residues in animal products, the question is, is food safety concern a momentary fad brought on by media attention? Or does it represent a long-term trend?

My own experience in the supermarket arena comes from dealing with a group of pre-school mothers in an upscale neighborhood at the time of the alar scare. We put in an organically-

grown section of fresh fruits and vegetables. These mothers aggressively demanded organic products one week, then refused to buy them when because they were more expensive.

Several consumer studies, such as the FMI-Fresh Trends survey, have shown that pesticide residues have long been seen as a "serious health hazard" by a large majority of the public. On the other hand, the same survey in 1989 asked consumers about their food safety concerns in an open ended format. In response, consumers identified spoilage and germs as the number one concern. They ranked pesticide residues fourth.

Overall, my bet is that the general concern about food safety is a trend that will continue into the 90s and that the trend has the potential to be "spiked" by pesticide or drug residue scares.

The USDA is taking an aggressive stand on identifying pesticide residues at the farm gate and the market place through a cooperative program with 12 states. My agency, HNIS, will take this data and analyze it based on food consumption

patterns. We are working closely with the EPA so that it may provide information based on foods actually consumed.

Environmentalism, the fringe movement from the 60s, has become a core value in the 90s. The tremendous media coverage of a host of environmental dangers and disasters has tripled, since 1982, the percentage of Americans who say that they are personally concerned about the environment. The food industry has responded with biodegradable toilet tissue and plastic bags containing corn starch. The issues of environmental and food safety concerns blur with the vegetarian and animal rights movements. The hysteria swings from putting diapers on cows to not eating meat at all because of the amount of energy it takes to produce beef cattle.

In the past ten years the public has become vastly better informed about diet and health, and I'd like to share with you two HNIS studies. The first is the 1988 Diet-Health Knowledge Survey (DHKS), and the second consists of changes we have observed from 1977-1987.

Our Nationwide Food Consumption Surveys (NFCS), conducted every ten years, are used to describe food use by households and existing behavior by household members. Today, I will use data from the last two of these surveys, those done in 1977-78 and 1987-88.

The Continuing Survey of Food Intakes by Individuals (CSFII) reports individual food intake data for each year between the decennial NFCS. The 1985 and 1986 CSFII collected dietary data primarily from women 19 to 50 years of age and their children aged one to five years. Beginning in 1989, data are collected from all age-sex groups.

For both the NFCS and the CSFII, interviewers get information on the type and amount of each food eaten, the time and name of the eating occasion, and whether it was from home food supplies or obtained and eaten away from home.

In 1989, the USDA began its new Diet and Health Knowledge Survey. This is the first national survey specifically designed to determine

how knowledge about and attitudes toward diet and health influence food choices and, consequently, nutrition intakes. Today I will present preliminary, unweighted data, showing how some 1,200 household meal planners/preparers answered questions about their knowledge and attitudes concerning diet and health.

Now let's see what the data tell us about the diets of Americans. Here are some changes in the variety of foods Americans have eaten over the years.

- We eat more meat-based mixtures and less meat as separate entrees
- We eat more grain-based mixtures, like pastas and pizzas.

Together, these two trends suggest an increasing preference for mixed dishes of several kinds.

- We drink much more lowfat milk compared to whole milk. In the ten years between 1977 and 1987, 23 percent less whole milk and 62 percent more lowfat and skim milks were consumed. In 1977, about half as much whole as lowfat milk was consumed, and in 1987 consumption of whole and lowfat milk was roughly equal.
- We eat fewer eggs.
- The slight decline in vegetable and fruit consumption shown here is inconclusive because vegetables consumed as part of mixtures, such as the carrots and potatoes in a beef stew or the tomato sauce on a pizza, are counted elsewhere.

Traditionally, the USDA has assigned a mixture to the food group of its primary ingredient. We are developing a system to separate food mixtures into their component parts. In future reports we hope to provide data both ways--with mixtures as eaten and as separated into their components.

- Soft drink consumption has increased. Most of the increase is for low calorie drinks.

Did the variety of food consumed by survey respondents in 1987-88 provide them with the Recommended Dietary Allowances or RDAs for essential nutrients? We compared average one-day intakes of 15 nutrients to their RDA. Mean intakes by all individuals exceeded the RDAs for nine nutrients: protein, vitamin A, vitamin C, thiamin, riboflavin, niacin, folate, vitamin B-12, and phosphorus.

However, some nutrients were below the RDA by a statistically significant amount for adult men and women. This does not mean, of course, that intakes are necessarily inadequate. Even so, comparison of intakes to a commonly accepted reference value such as the RDA is useful in assessing diets and in highlighting areas for improvement.

For adult men, intakes averaged below the RDA for zinc, magnesium and vitamin B-6. For women, intakes were below the RDA for these nutrients and also for calcium, iron and vitamin E. Of the nutrients found to be consumed in lower-than-recommended levels, calcium and iron are of particular concern. In the most recent report to Congress from the National Nutrition Monitoring System, these two nutrients were among those given the highest monitoring priority status.

Males fared better. Boys 12 to 19 years of age had intakes below RDA for magnesium. Men's average intake of zinc, magnesium, and vitamin B-6 were below RDA.

Why are some significantly lower than the RDA for adults but not for teens? For most of these nutrients, teens' intakes are higher, perhaps due to their higher caloric intakes. An exception was that, among teen-age girls, mean vitamin E intakes were no higher than those of older females, but intakes were more variable. Perhaps this was why the possibility that their intakes were not significantly below the RDA could not be rejected at the 99 percent level of confidence.

The second guideline recommends that Americans maintain a weight suggested for good health. Close to 20 percent of the women aged 19-50 years who participated in the 1987-88 NFCS were overweight, based on a body mass

index calculated from their self-reported weights and height. This number shows virtually no change from 1977, despite the tremendous popular interest in weight reduction.

Americans appear to have made progress in following the recommendations of the third guideline to avoid too much fat, saturated fat, and cholesterol. Fat intakes measured in 1977-78 for both women and men were about 40 percent of calorie intake, compared with 36-37 percent of calorie intake in 1987-88. Despite the difference, the average in 1987-88 is still well above the limit of 30 percent of calories recommended by the Dietary Guidelines Advisory Committee.

In 1987, intakes of saturated fatty acids by both male and female survey respondents averaged about 13 percent of calories--just about the same as in 1985 and 1986. This level is significantly higher than the 10 percent of calories limit recommended by the Dietary Guidelines Advisory Committee.

Daily cholesterol intakes among NFCS respondents averaged 245 mg for women and 356 mg for men. The level for men is above the 300 mg some authorities recommend.

The fourth guideline recommends choosing a diet with plenty of vegetables, fruits, and grain products--major sources of carbohydrates and dietary fiber. USDA research shows that in 1985, grains, fruits and vegetables supplied 92 percent of the fiber and about 60 percent of carbohydrates in women's diets.

In 1987-88, one day fiber intakes averaged about 11 gm per day for the adult women in our survey, and 15 gm per day for the men, significantly below the 20 to 30 gm per day the National Cancer Institute recommends.

Carbohydrate intake is also of interest with respect to the guideline on moderate use of sugars in the diet. The average amount of carbohydrate in the diets of all individuals has increased from 43 percent in 1977 to 47 percent in the 1987-88 survey.

Although carbohydrate provided by starches and sugars is not measured separately, it is likely that both have increased because of consumption of certain foods that contain them--such as grains products and soft drinks--has increased.

The Guidelines also recommend using sodium only in moderation. USDA reports sodium intakes from food alone, salt added during cooking or at the table is not included. In 1987-88, these intakes averaged 2451 mg per day for adult women and 3743 for men. These levels are at or above levels recommended by some authorities.

Had we been able to include the amounts of salt added at the table, certainly mean intakes of sodium would exceed recommendations.

To summarize, ten years after the first edition of the Dietary Guidelines was issued, the diets of Americans are good in many respects. We are meeting RDAs for most vitamins and minerals. Calcium and iron remain primary concerns. Progress is being made toward meeting recommendations for fat and cholesterol, but there is room for improvement here and in lowering the intake of saturated fatty acids.

Our new Diet-Health Knowledge Survey provides some insights into the barriers that may limit progress toward meeting the Guidelines.

One barrier may be a lack of awareness--people may not know that what they eat can affect their health. We asked main meal planners or preparers whether they agreed with this statement: "What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer." Most agreed (90%), and more than half agreed strongly (59%). At least in a general sense, it seems that most respondents know there is a relationship between diet and disease.

There is less certainty about the specifics. We asked, "Have you heard about any health problems that might be related to how much of specific nutrients a person eats?" The answer depended on the nutrient. Most had heard about health problems related to salt or sodium intake (85%) and cholesterol intake (86%). About three-

fourths (74%) had heard of health problems related to how much fat a person eats. Fewer were aware of health problems related to saturated fat, calcium, fiber and iron. To me, this suggests that there is a need for targeting our education message to heighten awareness about the relationship between diet and disease.

We will want to look at the characteristics of, for example, the 25 percent of the population who were not aware of the link between high fat diets and chronic disease, and to target information that will raise their awareness.

Another barrier may be lack of motivation. We asked respondents to indicate how important it was to them personally to follow each guideline. It is encouraging that large proportions of the respondents considered it important to avoid too much fat, saturated fat, and cholesterol. Still, surprisingly, about one-third of them did not consider it important to "avoid too much fat." For whatever reason, they apparently lack the motivation needed to put this guideline into practice.

When we have processed all the data from the survey, we will be able to determine actual fat intakes for the respondents. We will want to look most closely at the characteristics of those who are not motivated and who have high fat intakes.

Now, here is some data on how respondents viewed the importance of the "variety" guideline. We asked them to rate the importance of "eating a variety of foods," of "eating at least five servings a day of fruits and vegetables," and of "eating at least six servings a day of breads, cereals, and other grain products." The servings of fruits, vegetables, and grains are the minimum amounts suggested in USDA's Food Guide. The Dietary Guidelines Advisory Committee recommended that this Food Guide be included in the new edition of the guidelines. The Food Guide defines what we mean by eating a variety of food. It is striking that while close to 90 percent of the respondents thought variety was important, over 40 percent indicated that it was not important to them to eat at least five servings a day of fruits and vegetables, and more than 25 percent of the respondents said it was "not at all important." So,

while the respondents may be motivated to "eat a variety of foods," they may need more information about what this really means. While important for everyone, an understanding of these guidelines is particularly important for the main meal preparer.

To be motivated, individuals must also have some confidence in their ability to achieve a recommendation. Most respondents felt it was very important to maintain a desirable weight (88% thought it was important, 56% thought it was very important), but, as shown on this slide, a surprisingly large number agreed (44%) with the statement "some people are born to be fat and some thin; and there is not much you can do to change this." Thus, many of the individuals who feel they need to lose weight may lack confidence in their ability to do so.

A third barrier may be inaccurate perceptions of the diet. If individuals believe their diets already meet the guidelines, they have no reason to change. In the Diet-Health Knowledge Survey, respondents were asked, "Should your diet be lower or higher in various dietary components or is it just about right compared with what is most healthful?"

Again, let's look at some answers that relate to the guidelines on fat and cholesterol and on variety. Forty-four percent of the respondents thought that their diets were "about right" in fat. Yet for a similar population in our 1985 survey, only 12 percent of women aged 19 to 50 years old had fat intakes that met recommendations. For saturated fat, about 50 percent of our respondents thought their diet was "about right." This suggests a discrepancy between perception and reality.

As a consequence, some people may fail to follow the guidelines because they aren't aware that they are not already following them.

A fourth barrier may be confusion about what advice to follow. From the data shown previously, we know that many people believe that what they eat can affect their health. The data also tell us that most believe that they could benefit by making changes.

But, when we asked the respondents how much they agreed with the statement, "There are so many recommendations about healthy ways to eat, it's hard to know what to believe," about three-quarters agreed. Almost half agreed strongly. People have apparently heard lots of advice about nutrition, but many perceive it as conflicting advice. They don't know which advice to take, so they may not take any. Or they may be misled by inaccurate and even harmful advice.

A final barrier may be the lack of knowledge of how to put the guidelines into action. In focus group testing conducted during development of some of our newer education materials, respondents expressed an interest in nutrition and an understanding of the health benefits of eating Dietary Guidelines-style, but said they found it difficult to "put it all together."

This points to the need for practical, flexible guidance that shows a variety of strategies that may be used to achieve a healthy diet. Those who avoid meat to reduce fat but at the same time increase consumption of salad dressings, rich sauces, and creamy desserts may end up with a diet lower in important nutrients like iron and zinc and higher in the fat they were trying to control. They may need more knowledge of food composition or of how to plan for variety in the diet.

