



## THE VALUE OF KENTUCKY EXTENSION FOOD & NUTRITION PROGRAMS

**T**here are a variety of ways to assess economic value, including cost of services delivered or savings associated with the outcome of a service. Extension provides the service of educating the public. The outcomes of our services are perhaps best assessed in terms of cost savings. Food & nutrition programs are designed to help consumers select a nutritious, safe diet in an economical manner. In addition, clients participating in these programs often participate in volunteer or leadership development activities. Extension food & nutrition programs have an impact on communities, particularly the health care and food production systems, through their influence on consumers.

### Improved Nutrition and Better Health

Two primary aims of Extension food and nutrition programs are to educate the public about:

- how nutrition affects health and
- how to eat a nutritious diet.

Dietary habits can influence our risk of developing chronic diseases and our ability to control them. Three of the leading causes of death in Kentucky are cardiovascular disease, cancer, and diabetes—all of which have a diet and nutrition component in their prevention and treatment regimes. A 1998 report from the Centers for Disease Control and Prevention reported a *health-related quality of life index* for 16 states. *Kentucky was ranked lowest of the 16 states on the health index.* Kentuckians had fewer years of healthy life, as both young and old adults, than the residents of the other 15 states. The need to improve the health and quality of life for citizens in the Commonwealth is evident. As we approach the 21<sup>st</sup> century and become older in greater numbers than ever before, the incidence of chronic diseases can be expected to increase.

Early diagnosis of cancer, diabetes, or cardiovascular disease is often associated with

improved outcomes, including improved quality of life and longevity. Extension works with other state agencies to increase public awareness about chronic disease detection and control. Prevention, detection, and treatment of chronic disease in Kentucky is particularly important in today's changing health care environment. Opportunities to participate in health fairs where levels of blood pressure, glucose, or cholesterol are checked is a valuable service for communities.

People with chronic diseases require skills for self-care. Without these self-care skills, people with diabetes or heart disease often require costly acute care. For example, one of every \$7 spent by Medicare goes to diabetes expenditures. The prevention of chronic diseases through better self-care also requires skills. Promotion of healthy lifestyles through nutrition and physical activity is a theme for many Extension food and nutrition programs. Diet, nutrition and exercise are some of the most effective tools for self-care and prevention of chronic diseases.

In 1993, the Kentucky Dietetic Association documented that nutrition intervention for a person with **diabetes** can save an average of

\$300 per year in medication expenses and \$3,000 per year in hospital expenses. Research shows that maintaining a healthy weight, lowering fat intake, and participating in regular physical activity (e.g., walking) help prevent type II diabetes. With early diagnosis, this disease can often be controlled with diet and exercise. Unfortunately, approximately half those with the disease remain undiagnosed. Extension food and nutrition programs promote public awareness about diabetes and the need for screening and diagnosis. Our programs on nutrition and walking are available to all Kentucky counties and may be the only source of such information in rural areas. Diabetes has been diagnosed in about five percent of Kentucky's population. However, the Southeastern area of the Commonwealth has an incidence of nine percent, nearly twice that of the U.S. Risk of type II diabetes increases with age and for Kentuckians over age 65, the rate of diabetes is nearly 12 percent. As we approach the 21<sup>st</sup> Century, we can expect that diabetes will affect an increasing portion of Kentucky's aging population.

**Obesity** is a contributing factor in the development of type II diabetes and cardiovascular disease. The current economic impact of obesity in the U.S. is estimated at \$99 billion (1998 University of Virginia report). Approximately 52 percent of this is spent for direct medical costs and the remainder counted as indirect costs such as lost wages and premature death. In Kentucky, the prevalence of overweight in adults has escalated over the last seven years, rising from 23 percent in 1989 to 32 percent in 1996. At the current rate of a one percent annual increase, we would estimate that over one-third of Kentuckians will be overweight by the year 2000. To reverse this trend, we must aim for diets lower in fat and calories and increase physical activity levels.

Diets rich in fat and low in fiber contribute to obesity, diabetes, heart disease, stroke, and cancer. Extension brings nutrition programs like the National Cancer Institute's 5-A-Day and USDA's Food Guide Pyramid into Kentucky

communities. This local delivery of federally funded programs, in conjunction with other state and local agencies, is our hallmark. We translate current nutrition recommendations into a consumer-friendly format aimed at promoting health self-care skills. Extension collaborates with the Kentucky Cabinet for Health Services and the Kentucky Department for Public Health to deliver programs about nutrition and health which maximize state and federal resources. Extension works with local and district health departments to provide information about diabetes, heart disease, and cancer. In collaboration with the Kentucky Division of Epidemiology and Health Planning, we seek to identify gaps in public health nutrition in Kentucky and to design programs to meet those needs.

### **A Safe Supply of Food**

Food safety issues are an increasing concern for today's food consumer. The National Restaurant Association estimates that each individual educated on food safety issues saves \$1,000 in costs associated with foodborne illness. It is estimated that 46 percent of households practicing food preservation do not use recommended guidelines for safety and quality. By practicing good food safety procedures from farm to table, the risk of foodborne illness can be greatly reduced. The audiences for Extension programs on food safety include individuals, civic groups, restaurants, food service workers, and child care providers. These educational programs help ensure that Kentucky communities will have a safe supply of food by minimizing the risk of foodborne illness.

### **Spending Food Dollars Wisely**

The USDA estimates Americans spent \$691 billion for food in 1996. This represents about 10 percent of personal disposable income. Extension programs help food consumers spend this money wisely. In 1996, 46 percent of the U.S. food dollar was spent on food away from home, up from only 26 percent in 1956. Today's food

consumers have less time and fewer cooking skills than their predecessors. Economists apply the term *human capital* to the skills and abilities of people; skilled cooks can produce more appetizing and nutritious meals. Extension programs invest in human capital by increasing our clients' skills and abilities. During 1980-1992, the cost of food away from home rose 69 percent while cost of food at home rose 55 percent. This represents an average annual increase over that 25 year period of 2.5 percent. Each household participating in food and nutrition programs may expect to save time and money while increasing their human capital. *Those benefitting the most from these programs are limited-resource consumers since as income rises, the proportion of expenditures on food declines.* Considering the 1992 average per capita annual food expenditure of \$1,500 and the lower cost of food at home, Extension clients could save \$50 per family annually in food expenditures, while gaining a human capital investment to last a life-time.

### **Improved Quality of Life for Individuals**

Citizens throughout the Commonwealth of Kentucky can call their county Extension office with questions about diet, health, and food safety concerns. There, they know the answers will be researched-based and unbiased by any motivation to sell goods or services. Extension food and nutrition programs tap the resources of USDA and University of Kentucky and make these available on a local level. Most Extension services are free of charge, but they are certainly not without value. Each year, we answer over 10,000 questions related to food and nutrition issues. If consumers were paying for these services elsewhere, they would spend a minimum of \$10 for each query. In many cases, Extension is the resource citizens rely upon when they are uncertain about where to turn for food and nutrition information. This is especially true in rural areas where other resources are limited. This one-on-one aspect of Extension food and nutrition programs is a significant part of our public service.

Many Extension programs are designed for *train-the-trainer* delivery. In other words, we train a group of leaders who then train others in their community. This approach utilizes the services of volunteers and builds leadership skills in the community. Volunteer labor in educating people on food and nutrition helps extend the capabilities of our civic and health care systems. These group programs help improve the *quality of life* for individuals throughout our state. Volunteers in Extension food and nutrition programs provide services similar to those of wage earners in domestic, education, and social services. Based on 1995 compensation rates for these services, we can estimate the value of our volunteers at \$12 per hour of service. A national study conducted by the University of Wisconsin from 1984 to 1987 documented that Extension volunteers provide these types of services:

- teaching groups and counseling individuals;
- organizing educational events and projects;
- assisting with research and demonstrations;
- providing meeting places and materials; and
- sharing information informally.

People who participate in our programs are usually in a group setting. In today's society, this sense of belonging and connection in the community are increasingly scarce. This benefit of volunteering can be described as the value of the activities to the volunteers themselves. One 1994 estimate of this value uses a proportion of the market price (\$12 in this case) of 0.73. Using this approach, the value of learning and sense of community activities and service would be valued at \$8.75 per hour. In our state, the Kentucky Extension Homemakers Association is the most active of these groups, with more than 28,000 members during 1998.

### **Improved Quality of Life for Families**

Extension food and nutrition programs help strengthen families by educating family members about the relationship of diet to health and the skills needed to provide nutritious foods. Programs aimed at children, youth, parents, single adults, educators, and senior citizens all

benefit families. Food preferences and nutrition needs change throughout the life cycle. Our programs are designed to help families recognize and meet these changing needs with the latest information about diet, nutrition, food safety, and food economics.

## Improved Quality of Life for Communities

County Extension agents often serve as catalysts in their communities. They are agents of change with expertise in building partnerships and consolidating resources to achieve common goals. Many Extension efforts are aimed at making communities better places to live. Food, nutrition, and health have a great influence on quality of life. Extension programs to promote farmers' markets, develop cancer coalitions, promote physical activity, provide life skills training for welfare-to-work participants, and develop community leaders are just some of the ways Extension helps to build better communities.

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