



MICHIGAN STATE
UNIVERSITY
EXTENSION

Outcomes for Michigan's Future

Reducing Health Care Costs for At Risk Populations

In Brief

Today's Successes

- Nearly **9,000 low-income families** learned how to improve health through nutrition in 2004 as participants in MSUE nutrition education programs.*
- The Expanded Food and Nutrition Education Program (EFNEP) is estimated to **save Michigan \$158.5 million** annually in health care costs.
- Project FRESH gave farmers' market coupons to **34,000 low-income women and children** — 63 percent reported eating more fruits and vegetables.*
- WIC-eligible women who participate in MSUE's Breast-feeding Initiative show double the rate of breast-feeding compared with non-participants, **saving \$2.3 million annually** in Medicaid and HMO costs.*

Tomorrow's Results

- At least 150 Team Nutrition schools will implement federally required wellness policies, improving the nutrition choices and physical activity behaviors of **87,000 students**.
- More than **240,000 Food Stamp Nutrition Education program participants** will make at least one improvement in diet, food safety or family resource management.*
- More than 5,000 families will participate in the Building Strong Families parenting education program, resulting in estimated **savings to the state of nearly \$50 million** in costs associated with underdeveloped parenting skills.*
- As many as **20,000 Hispanic/Latina women** will receive education about breast/cervical cancer screening, resulting in early intervention and reduced medical costs.
- Approximately **1,000 low-income families** will receive immunization education, resulting in an increase in the number of fully immunized children in Michigan.*
- **Eighty percent of diabetes behavior-management program participants** will improve their blood sugar levels and lower their health care costs.

Michigan's Priorities in Reducing Health Care Costs

- **Reducing health care costs in chronic disease:** The cost of treating chronic disease is on the rise, showing annual per capita increases of 7.5 percent in 2001 and 8.3 percent in 2002. Medicaid is the largest item in the state's general fund — 12 percent of residents are eligible for Medicaid, and caseloads have increased more than 27 percent since 2000.
- **Addressing obesity issues:** Obesity-related medical costs were \$2.9 billion in 2003. Michigan's population has been among the 10 most overweight state populations for more than 10 years and is currently ranked third.
- **Promoting healthy lifestyle choices, including fitness:** Preventable deaths could be reduced by 51 percent, and many diseases can be prevented or reduced in severity through better lifestyle choices. The effects of inactive lifestyles cost Michigan nearly \$8.9 billion in 2002.
- **Raising healthy, strong children:** Eleven percent of Michigan's children are overweight, a rate that has tripled in the past 30 years and is among the country's highest. An overweight adolescent has a 70 to 80 percent chance of becoming an overweight adult.

MSU Capacity

- **Reach:** MSUE provides nutrition and health education programs in all 83 Michigan counties.
- **Experience:** MSUE and MAES are two of the longest standing direct-to-family health and nutrition research and information providers in the state.
- **Expertise:** MAES and MSUE employ experts at MSU and have global connections to additional expertise in areas related to health, food science and human nutrition.
- **Track record:** MSUE and MAES use proven methods of quickly and cost-efficiently moving peer-reviewed research to recommendations to program development and implementation yielding documented results.
- **"Feet on the street":** MSUE and MAES have staff members and thousands of volunteers already trained and on hand in every county, making it easy to position assets, tools, programs and ideas in every corner of the state.
- **Trust:** MSUE and MAES provide unbiased, scientifically sound research and education to help ensure that Michigan citizens can make educated decisions at local, regional and state levels to help reduce health care costs.
- **Content:** MAES conducts primary life sciences research, and MSUE uses the results to build upon a large library of health and nutrition programs.

Sampler of Success

Thousands of Michigan families are living healthier lives because of MSUE programs. MSUE helps them eat healthier, become more active, be better parents, prevent and manage chronic health conditions, and keep their homes safer. MAES food safety research is vital in keeping a healthy and safe food supply available across Michigan. MAES science-based information on the relationship between nutrition and health drives the development of MSUE programs. Here are a few examples of MAES and MSUE successes and capacity to produce desirable outcomes:

- The Expanded Food and Nutrition Education Program (EFNEP) provides direct nutrition education to low-income families. Every \$1 invested in EFNEP reduces health care costs by \$10.64. For the number of families reached, **EFNEP saves Michigan about \$158.5 million annually** in health care costs. As a health bonus, more than 60 percent of program participants increase consumption of fruits and/or vegetables.*
- MAES researchers found that food choices become less healthy as income levels decrease. This research is important in mapping the relationship between fam-

ily mealtimes and personal factors of adolescent weight status and diet quality.*

- In the largest program of its kind in the country, several MAES scientists are studying the relationship between the immune system and nutrition. Research on probiotic bacteria, zinc and the immune system, allergies and obesity may hold the key to **saving the state millions of dollars in health care costs**.
- In 2004, 97 percent of the WIC-eligible women who participated in the Breast-feeding Initiative (BFI) started breast-feeding and continued to breast-feed

beyond 12 weeks. This is double the rate of non-participants and saved an **estimated \$2.3 million** in Medicaid and HMO costs that year. Health impact savings extend well beyond the first year of life and throughout childhood.*

- More than **9,000 parents of young children** enrolled in MSUE nutrition education programs in 2004. Upon completion, 53 percent of participants reported making healthier family food choices, and 23 percent reported that their children ate breakfast more often.

Outcomes for Michigan's Future

MSUE and MAES are engaged in dozens of life sciences research projects and education programs that will help Michigan's communities make critical nutrition and health policy decisions, and Michigan's families and individuals make critical lifestyle choices.

Our MAES research initiatives over the next year will focus on:

- Improving dietary recommendations based on the understanding of the role of metabolism and the function of nutrients in the human diet.
- Developing dietary recommendations based on the linkage between nutrition and human obesity.
- Better understanding the links between lifestyle and genetics and human health risks.
- Enhancing the economic and nutritive value of Michigan-produced foods.
- Conducting nutritional assessments in population-based epidemiological studies.
- Determining the relationship between diet and cancer in humans to develop dietary prevention recommendations.
- Developing functional foods/nutraceuticals to reduce chronic disease risks.
- Reducing the allergenic potential of Michigan-produced foods and preventing health consequences of food allergies.
- Reducing obesity among young children.

Using research results, MSUE will deliver educational programs on disease prevention and wellness to Michigan citizens, with particular focus on children, low-income families and other vulnerable populations.

MSUE educational priorities and outcomes of our disease prevention and wellness programs for 2005-06:

- Project FRESH (Farmers' Market Nutrition Program), in partnership with WIC, will provide at least **32,000 participants with nutrition education**, encouraging them to improve their diet by providing them coupons to buy fresh fruits and vegetables at local farmers' markets. The program increases the demand for Michigan produce and boosts the local economy by providing income to farmers at participating markets. This effort alone will provide at least **\$500,000 per year to local growers**.*
- Building Strong Families will reach at least 5,000 Michigan families, **saving the state as much as \$50 million** in costs associated with low-birthweight babies, infant mortality, special education, protective services, foster care, criminology and psychological services.*
- More than **80 percent of people in the diabetes behavior-management program will improve their blood sugar levels**, resulting in fewer or delayed development of complications and lower medical costs.
- The Physician Peer Education Project on Immunization will **educate 1,000 medically at-risk families on the need for immunization**. According

Reducing Health Care Costs for At Risk Populations

to the Michigan surgeon general, for every dollar spent on measles, mumps and rubella vaccine, Michigan saves \$13 in health care costs; for every dollar spent on diphtheria, tetanus and pertussis vaccine, Michigan saves \$27 in health care costs.

- A MAES food scientist is studying which nutrients in food might help reduce risk of cardiovascular disease and heart attacks. This research suggests that Michigan tart cherries contain antioxidants that help lower cholesterol levels. Michigan is the nation's largest producer of tart cherries **supplying 80 percent of the U.S. market annually, with a 2003 crop valued at nearly \$58 million.**
- In the next several years, more than **20,000 Hispanic/Latina women will receive education about breast/cervical cancer** screening practices, and 1,500 women will be screened. Early intervention in this high-risk group will identify the disease at the most easily treatable and least expensive stage.*
- Team Nutrition will work with more than **900 Michigan schools** in 2005 to motivate, encourage and empower schools, families and communities to collaborate to improve school meals and help students make informed food and physical activity choices for a healthy lifestyle. Through these schools, MSUE will:
 - Work intensively with at least 150 schools to develop and implement the new federally required local wellness policies, enabling an estimated **87,000 students to practice healthier food and physical activity behaviors.** These health-promoting behaviors can positively affect students' weight as well as their academic achievement.
 - Reach at least 300 teachers who will **increase the amount of time spent teaching healthy food and physical activity behaviors by over 300 percent,** using an innovative Michigan program that integrates these topics into English/language arts instruction in accordance with Michigan standards.
- Reach **5,000 families, 33 percent of which will increase reading time with their children** and 88 percent of which will improve the variety of foods

eaten using an innovative, in-home Michigan program that includes children's books, a parent tip sheet and health-promoting recipes to improve food choices and encourage physical activity.

- The Food Stamp Nutrition Education Program will help at least **90,000 youth and 70,000 adults learn to adopt healthy food choices.** More than 240,000 people reached will demonstrate at least one positive behavior change in the area of dietary quality, food safety, family resource management or food security.*
- The Breast-feeding Initiative will reach at least 2,500 mothers, with at least 95 percent of them initiating breast-feeding. Breast-feeding for at least 12 weeks results in up to **\$487 in Medicaid and WIC savings per infant per year.***
- The Home Safe Kids program will work toward **reducing the incidence of lead poisoning in children by educating 170 at-risk families each year.** About 50 percent of the participating families will test their children for blood lead levels to identify any problems early, which will reduce treatment and expense.*

* Also addresses vulnerable populations and family quality of life concerns.

Spotlight on Success

"The Michigan Nutrition Network's Enhancement Grant Program is a great way for a low-income school to leverage funds to support and provide nutrition and physical activity education to students and staff. Our enhancement grant was a wonderful way to obtain resources for a school to link nutrition and physical activity education to literacy. Our participating school now has sustainable resources and trained staff to continue the program for many years."

Melinda Graham

Literacy Consultant for Food for Thought Project
South Haven Public School District

MSU is an affirmative-action, equal-opportunity institution.

For more information:

Thomas Coon, director, MSU Extension (517-355-2308 or msuedir@msu.edu)

John Baker, acting director, Michigan Agricultural Experiment Station (517-355-0123 or maesdir@msu.edu).