

Situation

Nutrition and physical activity are important for overall health and confer benefits throughout the lifespan. According to the 2013 statewide KSRE Program Prioritization Survey, respondents' highest priorities regarding nutrition and health were: Adopt behaviors that promote overall good health, including maintaining a healthy weight; and planning food budgets and shopping effectively.

Poor dietary intake and physical inactivity have been linked to many adverse health conditions – including obesity, diabetes, hypertension, stroke, heart disease, certain cancers, respiratory disorders, joint problems and osteoporosis – as well as to psychosocial problems. Research shows obesity to be a major cause of preventable disability and death in the U.S. In 2014, 31.1% of adults in Kansas were obese, the 13th highest in the nation (Centers for Disease Control and Prevention (CDC), 2016). In 2011-2012, nearly 17% of children aged 2-19 years were obese (CDC, 2015). Although youth obesity rates have remained fairly stable over the last few years, there is still concerns that ethnic minority children in the U.S. may have shorter life expectancies than their parents because the prevalence of obesity varies among ethnic groups.

Many factors have been linked to obesity rates. In 2013, nearly 90% and 92% of adult Kansans over the age of 18 did not meet the daily intake recommendation for fruits and vegetables, respectively (CDC, 2015). During this same time period, nearly 84% of high school students did not meet the daily intake for fruits and vegetables. Furthermore, in 2013, nearly 72% of Kansas high school students did not participate in at least 60 minutes of physical activity per day, and 80% of adults did not meet the recommendation of at least 150 minutes of moderate-intensity physical activity/week or 75 minutes of vigorous-intensity activity/week.

In addition to low intake of fruits and vegetables and insufficient amounts of physical activity, obesity is linked to increased portion sizes, eating out more often, poor nutrition choices (i.e., choosing foods low in nutrient density), increased consumption of sweetened beverages, increased screen time (e.g., television, computer, electronic games), changing labor markets, and fear of crime which prevents outdoor exercise.

Although body weight is the result of many factors, behavioral and environmental influences are large contributors to overweight and obesity and provide the greatest opportunity for actions and interventions designed for prevention and treatment. Consequently, there has been a greater recognition of the importance of education about healthful eating and physical activity for Kansans of all ages.

The selection of healthy foods depends, in part, on people having access to high-quality foods. Research has demonstrated that some people living in the U.S. lack access to affordable nutritious foods in their neighborhoods. High-quality foods include nutrient-dense foods that are of acceptable or better freshness, within optimal "use by" date if processed, and obtained in socially-acceptable ways. Access includes not only availability of high-quality foods, but also affordability and safety, and the knowledge and skills to procure and prepare high-quality foods. In order to support their ability to eat healthfully, many consumers – especially but not exclusively those with limited resources – need help acquiring skills regarding meal planning, basic food preparation, and food budgeting.

Lack of access may be related to overall disparities in health. Kansans with adequate resources possess the assets required to overcome those barriers to accessing high-quality foods that are encountered by Kansans with fewer key resources. In times of economic instability, those barriers are encountered by more persons, more often, for longer periods, and more deeply.

Economic downturns result in increasing numbers of Kansans requiring, and seeking, food assistance, despite ongoing efforts to reduce food insecurity and hunger among Kansans. The numbers of individuals participating in the Kansas Food Assistance Program (known nationally as the Supplemental Nutrition Assistance Program, or SNAP) are high, but the Kansas participation rate among those eligible for the SNAP program in 2010 was just 58%, compared to the national average of 66%. During 2015, almost one-half (49.97%) of Kansas students were eligible for free or reduced-price meals, up from 39.8% in 2007-2008.

Additionally, for the youngest Kansas consumers, diet quality is significantly challenged for those in families with limited resources. While breastfeeding is universally acknowledged as the nutritionally superior form of infant feeding, only 27.6% of Kansas WIC mothers breastfeed their infants at 6 months (KS WIC, 2016), falling far below the 40.3% of all Kansas mothers who breastfeed at 6 months, per CDC's 2014 Breastfeeding Report Card.

Community and school-based nutrition and physical activity initiatives reach a large and diverse number of Kansans. For example, Kansas schools participating in the National School Lunch Program and other Child Nutrition Programs have implemented Local Wellness Policies focused on nutrition guidelines for food available to students in schools, nutrition education, and physical activity. KSRE was listed in the Kansas Department of Education Wellness Model Guidelines as an approved provider of nutrition education for schools. Since 2014, KSRE agents and SNAP-Ed educators have partnered locally with Child Nutrition Services staff from Kansas Department of Education to increase Child Summer Feeding sites across the state. Additionally, the national 4-H Healthy Living Mission Mandate seeks to engage youth and families through opportunities that achieve physical, social and emotional well-being. By supporting health-related programs for adolescents, 4-H Healthy Living encourages all youth to adopt healthy eating and physical fitness habits.

Access to high-quality foods is being addressed locally in Kansas, through community gardens, CSAs (community supported agriculture) and home gardening, and at the highest level of government. With the release of Healthy People 2020, the U.S. Department of Health and Human Services continues to promote breastfeeding as a prominent part of the new 10-year goals for our nation's health. Similarly, the 2015-2020 Dietary Guidelines for Americans Call to Action includes the principle to "ensure that all Americans have access to nutritious foods and opportunities for physical activity."

Research shows that access to high-quality local foods positively affects consumers' diets, particularly the intake of fresh fruits and vegetables in young families, children, teens and older adults with limited resources. Although Kansas enjoys 118 farmers markets statewide, only 27 markets support electronic benefit transfers (EBTs), which are needed for shoppers to use their Kansas Food Assistance Program (SNAP) benefits. In addition, Kansas does not presently support the Supplemental Nutrition Program for Women, Infants and Children Farmers Market Nutrition program (WIC FMNP). More work in this area is needed because high-quality, nutritious foods are less likely to be available to Kansans with limited resources.

Public Value

When you support the K-State Research and Extension Promote Healthy Eating and Physical Activity in Kansans program, participants will increase their knowledge and skills about healthy eating, meal planning, food preparation, budgeting for food, accessing high quality foods, and physical activity habits, and will make healthier lifestyle choices. This will lead to fewer weight-related chronic and acute diseases, an increased number of low-income families that have adequate, high quality, safe foods consistently available to them, and improved quality of life, which will benefit other community members by lowering the public cost of health care and health insurance and increasing the number of productive contributing citizens.

Outcomes

Short-Term (Knowledge)

Program participants:

- Increase awareness and knowledge of recommendations related to healthy eating, meal planning, food preparation, budgeting for food, and physical activity.
- Improve attitudes about healthy eating, meal planning, food preparation, budgeting for food, and increased physical activity.
- Increase awareness and knowledge of strategies that improve access to high-quality and safe food (e.g., food assistance programs, gardening, home food preservation, low cost meal preparation).
- Especially those who are pregnant or new mothers, increase awareness and knowledge and improve attitudes regarding breastfeeding.

Staff and volunteers:

- Increase their awareness and knowledge of what constitutes an environment with healthy food choices and physical activity in schools and public venues.
- Increase their awareness and knowledge of how to improve access to high-quality, safe food for limited-resource residents in their community.

Indicators

- What awareness, knowledge or change in attitudes did program participants gain regarding healthy eating, meal planning, food preparation, budgeting for food, and physical activity?
- What awareness or knowledge did program participants gain regarding food assistance programs, gardening, home food preservation or other strategies that improve their access to high-quality and safe food?
- What awareness, knowledge or change in attitudes did program participants gain regarding breastfeeding?
- What awareness or knowledge did staff and volunteers gain regarding environments that support healthy food choices and physical activity?
- What awareness or knowledge did staff and volunteers gain regarding improving access to high-quality, safe food for limited-resource residents in their community (e.g., promoting private and community gardens, increasing local food production for food insecure persons, donations to food pantries, CSAs, electronic benefit transfer devices at Farmers Markets, SNAP outreach)?

Medium-Term (Behavior)

Program participants:

- Demonstrate improved eating, meal planning, food preparation, budgeting for food, and physical activity habits.
- Report using strategies that increase their access to high-quality, abundant and safe food (e.g., food assistance programs, gardening, home food preservation, low cost meal preparation).
- Who are new mothers initiate breastfeeding, exclusively breastfeed for a longer time, and still breastfeed at 6 months.

Staff and volunteers:

- Advocate or develop plans for increased access to healthful eating choices and physical activity environments in schools and public venues.
- Advocate or develop plans for increased access to high-quality, abundant and safe food (e.g., promoting private and community gardens, increasing local food production for food insecure persons, donations to food pantries, CSAs, electronic benefit transfer devices at Farmers Markets, SNAP outreach)

Indicators

- Three to six months after a program:
 - What changes do participants report regarding more healthful eating, meal planning, food preparation, budgeting for food and physical activity habits?
 - What changes do participants report regarding use of food assistance programs, gardening, home food preservation, low-cost meal preparation and other strategies that increase their access to high-quality, abundant and safe food?
 - Do participants who are new mothers report initiating breastfeeding, exclusively breastfeeding for a long time, and still breastfeeding at 6 months?
 - What changes have staff and volunteers taken to support healthier food choices and physical activity in schools and public venues?
 - What changes have staff and volunteers taken to support increased access to high-quality, abundant and safe food (e.g., promoting private and community gardens, increasing local food production for food insecure persons, donations to food pantries, CSAs, electronic benefit transfer devices at Farmers Markets, SNAP outreach)?

Long-Term (Change in Condition)

- More Kansans are at a healthy weight and meet both the dietary and physical activity Guidelines for Americans' recommendations.
- More Kansans have access to high quality, abundant and safe foods.
- More Kansans who qualify for SNAP participate in the program.

- Healthy People 2020 Breastfeeding Goals are met in Kansas.
- More Kansas schools and public venues plan and ensure healthy eating and physical activity environments for students/Kansas residents.
- More Kansas communities use strategies that increase their residents' access to high quality, abundant and safe foods.

Indicators

- Are more Kansans at a healthy weight and report consuming more vegetables and fruits and being physically active on most days?
- Do more Kansans have access to high quality, abundant and safe foods?
- Do more Kansans who qualify for SNAP participate in the program?
- Are the Healthy People 2020 Breastfeeding Goals met in Kansas?
- Do more Kansas schools and public venues plan and ensure environments for healthy eating and physical activity?
- Do more Kansas communities use strategies that increase their residents' access to high quality, abundant and safe foods?

Outputs

Participants:

- Families and individuals of all ages and income levels living in Kansas, including 4-H youth and families; educators; small and large scale food producers, retailers, community stakeholders
- Staff and volunteers in schools and public venues

Activities:

- Identify needs of the intended audience
- Provide nutrition education, meal planning, food preparation, budgeting for food, physical activity and wellness programs to youth and adult audiences
- Deliver education messages via multiple media products (including messages targeted and tested with limited resource audiences) – print, radio, TV, Internet and electronic; educational products including displays, eXtension contributions, curricula and printed materials; community sponsored events; and related programming (such as home food preservation methods, home food preparation and low cost meal preparation)
- Expand and promote nutrition and physical activity education opportunities, SNAP-Ed (the Kansas Family Nutrition Program or FNP), the Expanded Food and Nutrition Education Program (EFNEP), breastfeeding education and promotional activities,
- Agent involvement in school wellness committees and contacted for information and programming on nutrition and wellness for school-aged youth
- Facilitate and increase collaborations for healthier environments in communities (e.g. increasing the number of walking trails/bike lanes, healthier vending machine choices, community gardens, farmers markets)
- Community activities will include: increasing the number and quality of food items donated to food pantries; community and private gardening (with efforts made to increase production for food insecure persons through programs such as Plant a Row for the Hungry); and SNAP outreach and assistance program participation campaigns
- Agent and other professional in-service training on wellness best practices
- Specialists/agent technical support and consultation