



## HEALTH AND NUTRITION

# Fighting the debilitating diabetes disease

*Diabetes is one of the most widespread chronic diseases in the United States and affects more than 9% of the population. Diabetes was the seventh leading cause of death in the United States in 2015. Medical expenses for individuals with diabetes are about \$13,700 per year—more than twice the annual expenditures of people without diabetes. Land-grant universities are working to help individuals prevent the development of diabetes and help manage it for those diagnosed with the disease. Proper management of diabetes can improve quality of life and reduce medical costs.*

### HERE ARE A FEW EXAMPLES OF THE WORK UNIVERSITIES ARE DOING:

- Extension educators in **Virginia** teach healthy lifestyle behaviors for chronic disease prevention and management, reaching more than 77,000 people in 2018. Participants reported a range of improvements, including knowledge gains, intentions to change behaviors and adoption of behavior changes. Forty-six people with pre-diabetes, ranging in age from 38 to 85, lost an average of 5 pounds and 3% of body weight.
- Dining with Diabetes, an Extension program offered in many states, consists of a series of classes on nutrition education, healthy cooking demonstrations, simple physical activity routines and tasting healthy foods. The classes are for people with diabetes and their family members, caregivers and support persons. The program focuses on helping individuals learn strategies to lessen the health risks of diabetes. In **Kansas**, Dining with Diabetes participants were evaluated for their fruit and vegetable consumption and physical activity involvement on the first and last day of the program to assess changes in behavior. Participants increased the number of days they followed healthy behaviors. Such behaviors included exercising more than 20 minutes a day (an increase from 2.4 days to 3.6 days per week) and reading food labels prior to consuming a product (an increase from 2.9 days to 3.7 days per week).
- **Illinois** researchers gauged the willingness of clinicians and clients to use diabetes-related apps. Overall the response was very positive. The primary motivators for clinicians to use apps were availability and accessibility of apps, convenience and ease of use, and the nutrition information they provide. The primary deterrents to use of apps were the age of the clients, costs of the apps and security concerns. This information provides educators and developers qualitative evidence on how new technologies might be used going forward to help with diabetes education and management.

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- In **Minnesota** researchers are partnering with American Indian communities to provide diabetes education. Among racial and ethnic minorities, American Indians are disproportionately affected by diabetes, with prevalence rates exceeding 50% in some tribes. Over several years, the partnership has created a university/community effort called the Family Education Diabetes Series (FEDS). The program combines Western knowledge regarding disease processes and management with native worldviews of the medicine wheel and “walking in balance.” Evaluations show consistent improvements and maintenance of improvements achieved in American Indian participants across several physical measures.
- In **Texas**, several efforts to educate on diabetes prevention are improving the quality of life and productivity of residents there. More than 12,000 clients have participated in programs that teach participants skills to effectively manage their diabetes or reduce the risk of developing diabetes through better nutrition, exercise and monitoring of blood sugar levels.
- Diabetes support groups are an empowering tool for helping individuals manage and take control of their diabetes. **Kentucky** Extension is bringing together community partners to offer support groups and programming that empowers constituents with diabetes self-management, nutrition and exercise education.

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