

IMPACT



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Diabetes Education In Idaho

The Situation

In Idaho and the U.S., diabetes is the sixth leading cause of death. In the last decade, the percentage of Idaho adults with diabetes has increased by 45.7%, from 4.2% in 1994 to the current prevalence of 6.3% (2003, BRFSS).

Individuals who do not follow a prescribed treatment for diabetes are more likely to suffer from heart disease, stroke, high blood pressure, blindness, kidney disease, nervous system damage, amputations, and dental disease. The total annual cost of diabetes in Idaho, including direct medical expenses and indirect costs, such as disability, work loss and premature mortality is estimated at \$873 million. Research indicates that effective diabetes education can not only reduce the number of complications from diabetes but also decrease the overall cost of the disease.

The 2003 Behavioral Risk Factor Surveillance System (BRFSS) conducted by the Idaho Department of Health and Welfare in conjunction with the Centers for Disease Control and Prevention (CDC) found that Idaho adults were significantly more likely to have been diagnosed with diabetes if they were: over the age of 65, if they had less than a college education, and if they were obese (BMI \geq 30).

Our Response

Diabetes education includes using two curricula and providing information on individual topics to a diabetes support group. The curricula used by UI extension faculty to teach diabetes education include: (1) The Healthy Diabetes Plate and

(2) Healthy Eating with Diabetes. Both curricula contain 3-4 lessons and discuss the importance of controlling diabetes, planning meals using the Idaho Plate Method, incorporating recipes, eating out, and resources available to the participants. In addition, individual topics that have been taught to a diabetes support group include:

- Sugar Substitutes
- Life Balance for Diabetes Prevention
- Physical Activity
- Stress Management and Behavior Modification
- Carbohydrate Counting
- Real Life Strategies
- High Blood Pressure
- Cooking Tips

Numerous partners or collaborators include:

- Mimi Hartman, Manager, Idaho Diabetes Prevention and Control Program
- Diabetes Coalition in Kootenai County
- Senior living facilities: Heritage Place, limited resource apartment complex in Burley
- Bear Lake Memorial Hospital
- Oneida County Health Care
- Oneida County Diabetes Support Group
- Caribou County Diabetes Support Group
- The Church of Jesus Christ of Latter-Day Saints State Relief Societies
- Franklin County Diabetes Support Group
- Idaho State Pharmacy Professor Cindy Wilson
- Southeastern Idaho Diabetes Partnership
- Local health care providers
- Diabetes Health Fairs for Franklin County residents

Program Outcomes

Outcomes include contacts, research results, and presentations at international, national, and regional conferences.

1. Contacts. In FY2004, 540 individuals received diabetes education in Idaho:
 - 401 were females, 130 were males.
 - 530 were adults and 10 were youth.
 - 512 were Caucasian, 26 were Hispanic and 2 were Asian.
2. Peer-Reviewed Curriculum:
 - The curriculum, *The Healthy Diabetes Plate*, was published as a peer-reviewed curriculum through Educational Communications in January 2003.
3. Research results from *The Healthy Diabetes Plate*. Eight extension faculty participated in a research project to teach the four-lesson curriculum and collect data on participants' changes in knowledge and in behavior as a result of taking these lessons. The following data was analyzed on 117 participants:
 - Demographic Data: The majority of participants were female (97 out of 117), but the number of participants in the three age groups (26-54; 55 to 65; and 66+) were evenly distributed.
 - Diabetes Self-Care Measures: The diabetes self-care measures followed by 70% or more participants were an eye exam, checking their blood, a foot exam, and getting a flu shot. They were less familiar with Hemoglobin A1C testing (60%) and getting a pneumonia shot (approximately 50%). Very few of the participants (3%) smoked.
 - Signs and Symptoms of Diabetes: The symptoms people experienced included fatigue (72%) increased urination and increased thirst (45%), weight loss and blurry vision (38%) and increased appetite (30%).
 - Changes in Knowledge: Between 80-100% of participants were able to plan meals correctly, using the Idaho Plate Method (IPM).
 - Changes in Eating habits: There were no significant changes in breakfast, whole grain consumption, a trend toward increase

in milk consumption and decrease in sweetened beverage consumption and a significant increase ($p < 0.01$) in fruit and vegetable consumption.

4. Survey results from *Eating Healthy With Diabetes* (N=31) showed that 100%:
 - Are more familiar with the American Diabetes Association's Standards of Care.
 - Feel this program made them more aware of nutrition practices that raise and lower blood cholesterol.
 - Feel they are more conscious about trying to eat a lower fat diet.
 - Feel they will use the Standards of Care cards when seeing their physician.
 - Feel more confident about buying foods at the Supermarket.
 - Will use the Idaho Plate method to help plan meals.
 - Feel more confident about managing their diabetes.
 - Would encourage other people to take "Healthy Eating with Diabetes."
5. Survey results from *The Diabetes Support Group*. There were 45 participants in the support group and 6 completed a pre and post survey on diabetes. The ten question survey covered information on diet, symptoms of diabetes, insulin, pre-diabetes, risk factors, and physical activity. The results showed the average score of the pretest was 76%, while the average score of the post test was 94%. A one sample t-test found that the post test score was significantly higher than the pretest score ($p < 0.00$).

For More Information

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