

## **Cherokee Choices Diabetes Prevention Program for Native American Cherokee Indians (USA-Government)**

**<http://www.cherokee-hmd.org/cherokee-choices/index.html>**

### **Section I: Summary**

Cherokee Choices is a community-based diabetes intervention program funded by the U.S. Centers for Disease Control and Prevention (CDC) to improve the health of the Eastern Band of Cherokee Indians community in rural North Carolina state. The program uses three strategies to address the high rate of diabetes among the EBCI: elementary school mentoring, worksite wellness for adults, and church-based health promotion. The program also includes a social marketing strategy through the use of television advertisements and a television documentary series to support the three program components. The program has been well received by the Cherokee community and program participants have had success in meeting goals such as reductions in body fat, improved diet, and increased physical activity.

### **Section II: Statement of Purpose**

The Eastern Band of Cherokee Indians (EBCI) tribe has approximately 13,000 members located in the rural western mountains of the state of North Carolina, U.S. In recent years, an influx of revenue from casino operations on tribal land has improved the economic condition for many EBCI. An improvement in median income has led to an increase in the amount of money spent on dining in restaurants and fast food establishments rather than at home. This change in diet, along with a sedentary lifestyle, may contribute to the high rates of obesity and type 2 diabetes in both adults and children in the EBCI community. Based on data from 2003, almost 46% of EBCI men were obese, compared to 23.5% of men in North Carolina and 30% in the United States as a whole; data for women were strikingly similar. With regard to diabetes, EBCI men and women reported a combined diabetes prevalence rate of nearly 24%, more than three times the combined rate of men and women in North Carolina.

In 1999 the U.S. CDC provided funding through its Racial and Ethnic Approaches to Community Health (REACH) 2010 program to the EBCI to develop a community-based intervention to improve health. Diabetes and obesity were selected as intervention focus points for the EBCI community and the program became known as Cherokee Choices.

The design and implementation of Cherokee Choices took into account the unique sociocultural characteristics of the EBCI, including a need to address not only the medical and health issues but also issues of racism, historic grief and trauma, and mental health. A CDC-initiated community health survey,

research by Cherokee Choices program team members, and a professional marketing agency were all utilized to help develop a culturally appropriate program that integrated and acknowledged community values such as spirituality and the importance of extended family networks and intergenerational support. One observation of the marketing agency in its work with the community was that there appeared to be an “almost fatalistic acceptance of diabetes as an ‘inevitable fact of Cherokee life’ and a widespread belief that the disease is not preventable.” Therefore, the design and implementation of Cherokee Choices hinged on developing an approach that could help reduce the fatalistic attitude of the EBCI through visual messages to increase awareness, emotional and educational support, and cohesive community involvement. Ultimately, the goal was to integrate core American Indian values into a program that would improve and promote healthy lifestyle behaviors and reduce the risk of diabetes and obesity.

### *Cherokee Choices Program Components*

The Cherokee Choices Program is comprised of three main components: elementary school mentoring, worksite wellness for adults, and church-based health promotion. Television ads and a documentary series shown on cable-access television served as a social marketing strategy to promote the three components.

The three program components were identified and developed with input from the community in the first year of the program through in-depth research and interviews with community members, focus groups, and review of epidemiological data. A community action plan was developed that engaged community leaders and members in order to promote the program strategies. Program evaluation is based on the CDC’s REACH 2010 program evaluation criteria, including targeted action, community and systems change, and change among change agents.

### *Elementary School Mentoring*

The EBCI community has one elementary school that serves 600 children in grades kindergarten through sixth grade. The mentoring program involved four qualified, paid community mentors who worked with staff and students to increase awareness of diabetes as an important health issue, promote physical activity, and educate on nutrition and healthy eating habits. Key features of the mentoring program included:

- Mentoring during the school day and after school (a change in school policy allotted time for health promotion activities)
- Faculty fitness activities to develop teachers as healthy role models
- Encouragement of healthy choices and overall well being
- Education on stress management techniques and coping skills
- Promotion/teaching of self esteem, cultural pride and conflict resolution

- Health education

Both qualitative and quantitative data was collected to help evaluate the mentoring process. Students participated in an annual survey on issues of self-concept, perceived stress, cultural awareness, peer relations, and eating habits. The mentors also maintained daily logs in which they recorded interactions and exchanges between mentors and students. Future program initiatives were developed based on information collected.

#### *Worksite Wellness for Adults*

The worksite wellness program was designed as a challenge/incentive program among tribal workers who competed for prizes based on time spent in physical activity and weekly educational and support activities. The first group of workplace participants in 2002 included two teams, then over the next two years seven more teams were added to compete in 4-month challenges. Several additional teams were also added to a waiting list. Key activities of the worksite wellness program included:

- Physical activity goals
- Dietary change goals
- Healthy cooking demonstrations and nutritional assessments
- Classes on exercise techniques
- Supermarket tours
- Stress-management workshops
- Instruction and training by dietitians, nutritionists and fitness workers

Participants reported their eating and exercise habits in an initial interview with program staff, with followup interviews every six months. Clinical measurements (fasting blood glucose, blood pressure, and fasting lipid panel) were taken at a local diabetes clinic. Height, weight and body fat were also measured. Followup measures were taken every six months.

#### *Church Wellness Program*

Five churches participated in a number of activities to improve diet, increase physical activity, and raise awareness of available tribal health services. With the help of dietitians, nutritionists and fitness workers, the churches provided a location and a team leader for healthy cooking and food preparation demonstrations, exercise classes, and stress management workshops. An innovative initiative called Walk to Jerusalem was also introduced in which churches organized walking groups with the goal of collectively walking the equivalent distance from Cherokee, North Carolina to Jerusalem (approximately 8500 miles). Participants were given pedometers to keep track of miles and progress was displayed and tracked on a map in each church. Walkers were also encouraged with incentives such as exercise videos, cookbooks, and weights. Participants filled out pre- and post-intervention surveys with information health, physical activity, and diet.

### **Section III: Outcomes**

The Cherokee Choices program showed success in all three components.

#### *Elementary School Mentoring Outcomes*

- Children who received mentoring reported doing better than children who did not engage with a mentor in categories such as interest in school, learning, and ability to talk with friends.
- 96% of participants said they know how to make healthier food choices
- Teachers and students made changes toward more healthy behaviors (e.g. choosing a swim party over a pizza party to award high achievers in reading, encouraging parents to donate healthy beverages rather than soft drinks to school functions, continued participation in fitness classes and workshops).
- Anecdotal evidence from interviews with faculty and staff indicated that teachers were aware of definite changes in student and parent lifestyle choices, participation in health-related activities, and cooperation and support of each other.

#### *Worksite Wellness Program*

- 88% of participants completed the program, 56% met goals, and 94% said they would participate again.
- 70% of participants lost weight and maintained weight loss.
- One-third of participants lost one or more points in body mass index.
- Some participants were able to decrease or eliminate diabetes medications, high blood pressure medications, or both.
- Employees are now given time off work to exercise.

#### *Church Wellness Program*

- Participants in the Walk to Jerusalem walked more than 31,600 miles within 6 months. Each of the 150 participants walked an average 211 miles.
- Church pastors developed a series of sermons that underscore the importance of taking care of the physical as well as the spiritual self.

The participatory, community-based approach of the Cherokee Choices program was successful in meeting a number of diabetes and health improvement goals while gaining broad community respect and participation. Additional worksites and churches have asked for an expansion of the program and generated an interest in developing a similar model to address other health issues. There is also a perception that the program has helped

to address some of the fatalistic attitudes about diabetes in the ECBI community.

#### **Section IV: Additional Resources**

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