

## **Wa-dooch Pinx-ji “Really Good Eating” – The Little Priest Tribal College Fruit and Vegetable Intervention Project – Final Report**

### **Introduction**

According to Nebraska Health and Human Services, American Indians in Nebraska are more likely to die from diabetes-related causes than all other racial and ethnic groups. Emulating the 2002-2003 USDA Fruit and Vegetable Pilot Program model, the Wa-dooch Pinx-gi (Really Good Eating) Fresh Fruit and Vegetable Intervention Project was designed to study and address the awareness and behavior associated with an unhealthy diet and to seek strategies and solutions to positively change LPTC students’ unhealthy eating behavior. This was accomplished through the implementation of a two-semester multi-faceted food distribution program, complemented by a series of nutrition education programs. As a result, the program assisted students who are current and former recipients of food assistance to make the transition to healthy eating for themselves and their families, independent of government assistance programs through education, participant feedback, and introduction of healthy fruits and vegetables into their daily diets.

### **Background**

The Winnebago call themselves Ho-Chunk (Hochungara, Hotcangara, Ochangra) "people of the big speech" – perhaps better rendered as "people of the parent speech," referring to their role as "grandfathers," the original people from which other Siouan-speaking tribes sprang. They were originally from present day Wisconsin, but were removed as white settlers eventually secured access to the rich pasture land and the fishing and mineral rights of the Great Lakes region. Although the Winnebago spoke a Siouan language, they were very much a woodland tribe whose lifestyle and dress reflected their environment. The tribe was settled in their present location in 1865.

The Winnebago reservation is located in the north half of Thurston County, in northeast Nebraska. The reservation, bounded on the east by the Missouri River near the convergence of the three states of South Dakota, Iowa and Nebraska, consists of 113,000 acres. Of the total tribal enrollment of 4,363, 1,432 live on the Winnebago Reservation, with a majority of the remaining number residing in Thurston County which surrounds the reservation. Approximately one-third of the reservation acreage is owned by the tribe and individual tribal members. Non-natives, however, farm much of the Indian land.

In May, 1996, Little Priest Tribal College (LPTC) was chartered by the Winnebago Tribe of Nebraska to meet the higher education needs of the Ho-Chunk people. The College is named for the last eminent war chief who envisioned education as the path to future empowerment of the Ho-Chunk people. LPTC is located in Winnebago Village. The closest metropolitan areas are Sioux City, IA 25 miles north, and Omaha, NE, 80 miles south of Winnebago. LPTC has a student enrollment of 100-130 students/ semester; six full-time faculty and 12 adjuncts and 30 full-time and part-time staff members.

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## **Discussion**

There is no cafeteria on the campus of Little Priest Tribal College and there is very limited availability of food providers within Winnebago Village. According to Nebraska Health and Human Services, American Indians in Nebraska are more likely to die from diabetes-related causes than all other racial and ethnic groups. The research project, Wa-dooch Pinx-ji (Really Good Eating) is based on the USDA Fruit and Vegetable Pilot Program model. The project, as envisioned by LPTC, was to address the awareness and behavior associated with an unhealthy diet. It was designed to assist students and staff who were currently and formerly recipients of food assistance to make the transition to healthy eating for themselves and their families, independent of government assistance programs through education, participant feedback, and introduction of healthy fruits and vegetables into their daily diets.

The project began very simply through the purchase of fresh fruits and vegetables, which were placed in strategically-selected gathering places around the campus. Oatmeal was served daily from 8:00 to 9:30 in the morning. On Wednesdays a community soup was provided for students, staff and faculty. Both of these initiatives were a great success.

The fruits were consumed quickly. Two cases of apples, oranges and bananas were consistently purchased, augmenting those with various other seasonal fruits such as pears, grapes and strawberries. Ten to fifteen people were served oatmeal each morning. At the peak, in September and October of 2008, 150-200 people were served a healthy oatmeal breakfast each month. The most surprising success has been the positive response to the Wednesday noon soup service. Volunteers were asked to sign up weekly to prepare their favorite soup. They provided the list of ingredients for purchase the week before, and then were provided access to the Little Priest Tribal College's small, but functional kitchen to prepare the soup. Everyone enjoyed the variety of soups and the opportunity to display their culinary arts skills as well.

Nutritional information was compiled from the web and other sources and a one-page fact sheet about the different fruits and vegetables served was provided. Whenever possible, information about the traditional use of the item within the tribal community was included and where possible, the Ho-Chunk name was provided.

## **Methodology**

Over the course of this study, two experimental programs with four participant surveys were conducted. In November, 2007, a baseline survey was conducted to determine what students' current eating habits were. In that survey participants were asked to identify their typical everyday eating habits; how often they ate breakfast, lunch and dinner; what snacks and how many they had on a daily basis; who shops and prepares most of the meals in their home and how often fresh fruits and vegetables were served in their homes. Of the responses received in Survey 1 (N= 28) only fifty (50%) percent of the respondents ate breakfast regularly; seventy-nine percent had lunch and 96% had dinner. A large majority, sixty-four (64%) percent, had snacks at least twice a day.

### **Experiment One/Survey One:**

In this baseline survey, eating habits were revealed that confirmed suspicions that healthier foods like fruit and vegetables were not predominant in LPTC students' meals. Meat and eggs dominated breakfast; meat and soup were frequent lunch choices; and meat and pasta/rice were more often served for dinner. While vegetable services did appear on the table more often at dinner, fruit and even salads servings were nearly non-existent. Twenty-three of the twenty-eight survey respondents utilized WIC (6), commodity foods (9), or food stamps (8). They named the following "favorite foods from these programs:" cereal, beans, cheese, milk, oatmeal, eggs, bread, chicken, fresh vegetables, rice, powdered eggs, soup, and raisins.

The majority (18) ate snacks twice a day. Their favorites were: chips, pop, candy, crackers, and pizza. Of the twenty-eight (28) respondents, twenty-four (24) were the primary food preparer in the home. A majority (13) of these individuals reported serving fruits and vegetables at least once a day in their home; and fourteen (14) reported always eating fruits and vegetables; however they were overwhelmingly canned and frozen rather than fresh. When fruits and vegetables were not served, the following main reasons were given: affordability (9), good selection not available (4), and transportation challenges (3). Fifteen (15) respondents reported growing their own vegetables on occasion.

### **Results: Survey Two:**

In April of 2008, a survey was conducted to follow up on participation: How often did the students eat the fresh fruits made available by the Really Good Eating program? Had participation in the program changed their eating habits? Had they tried new and different items as a result of the program? Were they serving more fresh fruits and vegetables at home? Did the students note any changes physically and/or mentally due to their participation in the Really Good Eating Program?

The results of this survey show a clear majority of participants (N = 33), fifty-five (55%) percent reported eating more fruits and vegetables than before the program started. Forty-five (45%) percent reported that while the fruits and vegetables came from the program, forty-seven (47%) of the respondents said the fresh fruits/vegetables came from the study as well as from other sources. Thirty-nine (39%) percent of the respondents said that they were eating more healthful foods since the study began. Ninety-seven (97%) percent of the respondents reported that since their participation in the study they are serving more fresh fruits and vegetables in their homes, with thirty-four (34%) reporting serving more fresh fruits and vegetables on a regular basis. Finally, the most encouraging results gleaned from the survey were that eighty-four (84%) percent of the respondents reported that they noticed a change in how they feel physically with almost half of the respondents reporting that they had more energy. When asked about concentration and study skills, fifty-five (55%) percent indicated they noticed an increase in their abilities.

Student participants overwhelmingly reported a positive change in their eating habits given their participation in the Really Good Eating program. Of thirty-one (31) qualitative remarks only three (3) reported no change. The types of changes made are illustrated in the following remarks:

- “It helped me get more fruits”
- “I found I like fruits and veggies!”
- “I go for fruit instead of chips in machines”
- “I eat more fruits and stopped drinking pop”
- “I eat more fruits and vegetables and eat less sweets”
- “I actually was able to diet, ‘cause before I would eat greasy foods”

The majority of students (32) reported the following kinds of changes when asked how they felt physically during the day:

- “More energy”
- “More wide awake”
- “Less stress”
- “Able to focus”
- “Less bloated – as with chips”
- “Don’t feel the caffeine crash”
- “No sugar highs and lows”

When asked about changes in study habits, twenty-one (21) reported they were able to concentrate better in class and explained the results typically with the following comments:

- “my mind is not on food during the major times of studying, during tests, before class”
- “read more”
- “more awake”

### **Experiment Two:**

As a result of the positive response to the Really Good Eating program in the spring semester of 2008, an experimental dinner program was commenced in the fall of 2008, under the premise that a simple, nutritious dinner for the students would result in lower evening class tardiness, improved focus in class and a measurable decrease in the evening class attrition rates.

### **Results: Survey 3:**

An initial survey (N = 55) was conducted in September, 2008. The purpose of this research was to explore both the interest in and need for a dinner program. The majority of participants (22) reported always eating dinner and thirteen (13) reported “most of the time” prior to attending classes. Only five (5) reported never eating dinner. Forty-eight (48) participants reported never

missing class even if they had to miss dinner. Of the four top reasons given for coming to class without dinner, *time* was clearly the top reason at sixty-five (65%) percent. When taken together with needing to provide dinner and/or child care for their children, the percentage increased to eighty-seven (87%) percent.

Most respondents reported it was very or somewhat difficult (N = 35) to get dinner before evening classes. Time and children (N = 20) were the major factors. When asked why, the following comments were typical reasons given:

- “Time crunch. Trying to get dinner cooked and kids fed before class”
- “Kids are eating when I leave”
- “it is somewhat difficult to try to cook dinner and eat and feed my kids, then have time to take them to day care and be in class by 5:30”
- “Very difficult, I live 25 miles from here and don’t have time after getting out of class at 3:30 here and then getting my child to a sitter and coming back to class at 5:30”

Twenty-six (26) participants reported that because of the lack of time they ate junk food or a snack before evening classes. However, only four (4) reported ever missing a class because of dinner plans. There was significant interest (42) in a dinner meal program, but the research indicates it would not change attendance patterns.

#### **Results: Survey 4:**

A fourth survey (N = 45) was conducted in October of 2008. The primary goal of this survey was to determine if the dinner program was being utilized by the students. Eighty-two (82%) percent of the students had participated in the program and the majority of them on a regular basis. One hundred (100%) percent of the respondents wanted to see the dinner program continue. However, it is clear from the results of the study that without a dinner program, LPTC students will still attend classes.

Nineteen (19) of forty-five (45) participants attend evening classes and thirty-seven (37) of forty-five (45) survey respondents participated regularly in the evening dinner program. The favorite meals served were (1) submarine sandwiches, (2) lasagna and garlic bread, (3) roasted chicken with green beans, and (4) taco salad. The least favorite meal was chicken Caesar with spinach wrap. Students who reported not participating gave the following reasons: (1) ate dinner at home before I came, (2) did not know about the program, (3) did not like what was served, (4) not enough time, and (5) brought something to eat with me.

#### **Conclusion**

The main goal of the program was to emulate the 2002-2003 USDA Fruit and Vegetable Pilot Program to raise the awareness and the behavior associated with an unhealthy diet and, pursuant to the results of these studies, this has been accomplished. It is clear that the experimental Really Good Eating Program appeared to change participants’ basic eating patterns. More fruits and vegetables were introduced in our students’ food choices. These

replaced snacks and pop and, more importantly, increased their self-reported physical and mental alertness and concentration in class.

While the experimental evening program was overwhelmingly popular with our students, it is clear that it was not a factor in whether or not students would attend evening classes at Little Priest Tribal College. Another goal of this program was to assist our students in the transition into healthier eating. Many still associate healthy with high cost and time consuming preparation. A nutrition course will be offered in May 2009, not only providing information about healthy eating, but techniques for shopping and preparing foods that are tasty, nutritious and fun to eat. This is another positive outcome from participating in this ERS-funded research program.

The survey results from this grant will be used to apply for additional funding. Preliminary discussions are now focused on the development of a construction grant in order to build an eating commons with a professional kitchen, possibly in conjunction with a child-care facility, capable of serving 250-300 people. This would not only provide meals at a minimal cost to our students and our students' children, it would also provide a much needed childcare facility for our largely female/mother student population; as well as a cafeteria for the Ho-Chunk community at large.