



Making a Difference

2016 Baylor County Learn, Grow, Eat & GO! In-depth Plan Summary Monica Walker, CEA-FCS, and Josh Kouns, CEA-ANR

An interdisciplinary approach to reducing child obesity through the Learn, Grow, Eat & GO! curriculum (a modification/revision of the Junior Master Gardener "Nutrition in the Garden"), Walk Across Texas, and the Coordinated Approach to Child Health program.

Relevance

The high prevalence of childhood obesity in Texas is cause for concern because it is linked to negative health consequences for children and their families. Schools are uniquely positioned to have a positive impact on children's knowledge and behaviors associated with obesity. For example, vegetable exposure plus school gardening has been shown to improve consumption of fruits and vegetables. Adding more frequent and more vigorous physical activities during school has been shown to improve student fitness and weight. The home environment is also an important influence on a child's eating and activity behaviors. The greater the frequency of vegetable consumption and physical activity by parents, the greater the consumption of these foods and exercise by their children. With child obesity rates among low-income children in Texas ranging from 10% to over 20%, engaging schools and families in prevention efforts is critical. Baylor County ranks poorly in Texas for health outcomes, (225th out of the 254 counties), which represents the health of a county. Among the factors included in this ranking is obesity rates.

Response

To target this high prevalence of childhood obesity, Texas A&M AgriLife Extension Service in Baylor County partnered with the Seymour Independent School District to implement the Learn, Grow, Eat & GO! curriculum in the three second grade classes at Seymour Elementary School.

The Learn, Grow, Eat & GO! (LGEG) curriculum emphasizes science, math, language art/reading, social studies and health through effective learning activities with both the LGEG and Walk Across Texas (WAT) programs. The LGEG curriculum was designed to engage children and their families in school gardens, vegetable recipe tastings, classroom activities and take home family stories; and includes:

- Classroom raised bed gardens
- Classroom vegetable tastings and food demonstrations
- Family stories for students to take home
- Opportunities for "Growing Strong" section
 - o Walk Across Texas online team enrollment
 - o Family physical activity newsletters
 - o Family physical activity bonus miles



Educational programs of the Texas A&M AgriLife Extension Service are open to all people without regard to race, color, sex, religion, national origin, age, disability, genetic information, or veteran status. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating

Volunteers were recruited and utilized to help implement the program. The Seymour Garden Club assisted with the school gardens, and parents assisted with the school gardens, food demonstrations, curriculum activities and Walk Across Texas. The three second grade teachers assisted with the curriculum delivery.

Results

36 second grade students ages 7 to 8 years old attended one or more of the sessions, and 33 completed pre and post evaluations.

Nutrition: Extension personnel and teachers led 6 raw vegetable tastings and food demonstrations to increase child preference. Child preference for vegetables is a high indicator for consumption of vegetables. The chart below shows the increase in the number of vegetables tried and the number liked before and after the program.

| Vegetable Tastings | Pre-Series Mean | Post-Series Mean | Percent Change |
|----------------------------|-----------------|------------------|----------------|
| Number of vegetables tried | 12.58 | 17.39 | +38% |
| Number of vegetables liked | 8.24 | 12.06 | +46% |

- ❖ An example of an increase in vegetable preference as a result of LGEG was bok choy. Bok choy was one of the raw vegetable tastings, and before the program, only 6.1% of the students said they liked bok choy, and after the program 84.8% said they liked bok choy!

Physical Activity: Physical activity programs are implemented by Extension personal and school staff to increase student involvement in physical activities and decrease sedentary behaviors.

- Students indicated that they were spending less time being sedentary (watching TV, playing computers or video games) away from school. Before the LGEG program, 24.2% of the children indicated that they spent 2-4 hours per day watching TV or playing computer or video games, while after the program only 6.1 % of the children reported spending 2-4 hours doing these sedentary activities.
- Students increased physical activity through the Walk Across Texas program. The second graders and their families walked a total of 4,056 miles during the 8 week period.

Garden: Students participated in building, planting, maintaining, and harvesting classroom garden beds. The LGEG program invites parents to participate in the gardening project and encourages students to share their experiences at home with their families.

- Prior to LGEG, only 30.3% of the students had planned a vegetable garden with their family members, and after the program, 66.7% had planned a vegetable garden with their family.
- Many of the students indicated they had started a garden bed or a container garden at home as a result of the LGEG program.

Acknowledgments

Texas A&M AgriLife Extension Service in Baylor County would like to recognize United Supermarket, Feed & Seed, and Snyder Steel for providing demonstration supplies and gardening supplies.

In addition, the rainwater harvesting system that was put together in 2015 through the Seymour ISD Maintenance Crew, Gillispie Drilling, Manage Your Water Systems, LLC, and Longhorn Lumber is still being utilized for the watering of the LGEG garden, and is a valuable source of water due to watering restrictions in the City of Seymour.

