

# Texas Grow! Eat! GO!

## Using Family Focused Garden, Nutrition and Physical Activity Programs to Reduce Childhood Obesity

### ISSUE



**TEXAS CHILDREN HAVE HIGH OBESITY RATES:** the School Physical Activity and Nutrition (SPAN) survey found the prevalence of obesity for 4<sup>th</sup> grade children to be 23.8%.

**RISKS OF CHILDHOOD OBESITY INCLUDE:** lower school attendance, increased risk of being teased, bullied, and developing Type 2 Diabetes during childhood.

### SCHOOLS CAN HAVE A POSITIVE IMPACT ON CHILD OBESITY.

- School garden-based programs have been shown to increase the healthy eating habits of students.
- Adding more frequent and vigorous physical activities during school has been shown to improve student fitness and weight.



*Students participating in a healthy cooking demonstration in class.*

### APPROACH

Evaluate the effects of two best practice Extension programs: Junior Master Gardener Learn, Grow, Eat & GO (JMG-LGEG) and Walk Across Texas! (WAT!) combined with Coordinated Approach To Child Health (CATCH). Third grade teachers and PE coaches received training on these programs. The study focused on eating and physical activity behaviors in 3<sup>rd</sup> grade students and their parents. 28 Title I geographically diverse elementary schools were involved.



### PROGRAM COMPONENTS

#### JMG-LGEG

- 14 weeks of teacher led classroom lessons aligned with TEKS and STAAR standards
- Fall and Spring school gardens featuring 12 vegetables
- Student garden journals
- 12 fresh vegetable tastings in class
- 12 easy vegetable recipe demonstrations in class
- 12 easy vegetable recipes to take home (English/Spanish)
- 14 Family stories aligned with TEKS (English/Spanish)
- Family and volunteer engagement opportunities

#### WAT!

- Two 8-week physical activity challenges among classrooms
- Teacher in-class activity lesson plans aligned with TEKS and STAAR standards
- Engagement pieces designed to get children active at home
  - Family bonus miles
  - Walking bingo
  - Family newsletters (English/Spanish)
- Family and volunteer engagement opportunities

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**28**
  
 Texas schools

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**1369**
  
 3rd grade students

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**1206**
  
 parents



WALK ACROSS TEXAS!

# RESULTS

Extension's combined JMG-LGEG+WAT! combined with CATCH showed significant behavioral improvement in 1369 3<sup>rd</sup> grade students and 1206 parents\*:

- ✓ Student vegetable preference increased
- ✓ Student vegetable consumption at school increased
- ✓ Student knowledge in nutrition and plant science increased
- ✓ Student engagement in moderate physical activity increased
- ✓ Student sugar sweetened beverage consumption decreased
- ✓ Home availability of sugar sweetened beverages decreased
- ✓ Parents and students gardening together increased
- ✓ Parents and students preparing meals together increased
- ✓ Parents and students eating meals together increased
- ✓ WAT! only and JMG-LGEG only showed significant reduction in child BMI

*\*Using a randomized control study with pre-post and follow-up surveys with children, parents, teachers, and volunteers.*



## GROW SMART & HEALTHY KIDS!

### **Research collaborators included:**

University of Texas School of Public Health – Austin Regional Campus

Texas A&M School of Public Health

Texas A&M Recreation, Parks & Tourism Science & Health and Kinesiology Departments

Texas A&M AgriLife Extension Service: Horticulture, Family Development and Nutrition



for more information

<http://jmgkids.us/lgeg/>

<http://walkacrosstexas.tamu.edu/>



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