

## 2010 D8 4-H Food Challenge

### RELEVANCE



Recent studies indicate that the nation's obesity rate is rising, especially among children. Obesity can lead to other health related problems such as Type II Diabetes. Research shows that such conditions can be controlled with proper eating and physical activity. It is crucial that youth and adults are educated about healthy living. The 4-H Food & Nutrition project teaches youth these essential life skills and can also help them to teach others about proper nutrition.

### RESPONSE

The 4-H Food Challenge is an event that can help teach youth the essential life skills related to not only healthy lifestyle choices, but also about teamwork, presentation, and problem solving. In this high-energy competition, youth work in teams of 3-5 members and are given a bag of "secret ingredients". They are timed for 40 minutes to prepare a recipe using no instructions. The final stage of the event is to present the new creation to the judges including information related to preparation steps, food safety, nutritional value, MyPyramid, and cost per serving. Youth practice in their home counties through workshops, project meetings, and mock contests to prepare for the district contest.



### RESULTS

A retrospective-post evaluation was utilized to measure impact. A total of 226 evaluations were returned.

#### ***Behavior Changes***

Participants indicated the following results because of what they learned by participating in the 4-H Food & Nutrition project and the 4-H Food Challenge:

- **95.0% (210) of participants** are more comfortable working in a team because they have participated in the food challenge.
- **82.9% (184) of participants** changed the way they handle and prepare food based on what they have learned.
- **86.1% (192) of participants** are more willing to listen to others because they have participated in the food challenge.
- **83.4% (186) of participants** made healthier food choices based on what they have learned.
- **82.4% (183) of participants** are more comfortable with speaking with others because they have participated in the food challenge.
- **80.9% (182) of participants** planned or prepared a recipe at home based on what they have learned.
- **82.5% (184) of participants** said they are going to do a better job of following through on obligations because they have participated in the food challenge.
- **70.9% (158) of participants** are more comfortable with servicing in a leadership role (be a leader) because they have participated in the food challenge.
- **50.2% (112) of participants** altered a recipe according to dietary needs based on what they have learned.

#### ***Knowledge Gained***

Participants were asked to rank their knowledge before and after participating in the 4-H Food Challenge in seven areas based on a four-point scale. 1="Didn't know very much" (Poor), 2="Knew a little" (Average), 3="Knew a bunch" (Good), and 4="Knew a whole lot" (Excellent). The text below describes the participants' knowledge level before and after, as well as the percentage of participants that increased their knowledge. The table below shows the mean scores before and after, as well as the percent change. Percent change is calculated by (mean after – mean before) / mean before \* 100.

- **41.2% of participants** indicated a "Good" or "Excellent" understanding of MyPyramid before the Food Challenge; increasing to **84.5%** after the Food Challenge.
  - **65.0%** of participants perceived that their level of understanding increased.
- **35.1% of participants** indicated a "Good" or "Excellent" knowledge of food nutrients and their functions before the Food Challenge; increasing to **77.8%** after the Food Challenge.
  - **68.7%** of participants perceived that their level of knowledge increased.
- **84.8% of participants** indicated a "Good" or "Excellent" understanding of the importance of food safety before the Food Challenge; increasing to **96.9%** after the Food Challenge.
  - **39.0%** of participants perceived that their level of understanding increased.
- **87.0% of participants** indicated a "Good" or "Excellent" understanding of kitchen safety before the Food Challenge; increasing to **93.3%** after the Food Challenge.
  - **36.8%** of participants perceived that their level of understanding increased.



- **53.3% of participants** indicated a “Good” or “Excellent” knowledge of the purpose of different cooking methods before the Food Challenge; increasing to **86.2%** after the Food Challenge.
  - **59.1%** of participants perceived that their level of knowledge increased.
- **64.6% of participants** indicated a “Good” or “Excellent” understanding of how to plan and prepare a recipe before the Food Challenge; increasing to **91.5%** after the Food Challenge.
  - **52.0%** of participants perceived that their level of understanding increased.
- **44.2% of participants** indicated a “Good” or “Excellent” knowledge of how to alter a recipe according to dietary needs before the Food Challenge; increasing to **76.3%** after the Food Challenge.
  - **58.0%** of participants perceived that their level of increased.



Statement	Before	After	Change	% Change
Knowledge of food nutrients and their functions	2.18	3.10	0.92	<b>42.20%</b>
Understanding of MyPyramid	2.43	3.29	0.86	<b>35.39%</b>
Knowledge of how to alter a recipe according to dietary needs	2.39	3.15	0.76	<b>31.80%</b>
Knowledge of the purpose of different cooking methods	2.53	3.31	0.78	<b>30.83%</b>
Understanding of how to plan and prepare a recipe	2.84	3.52	0.68	<b>23.94%</b>
Understanding of the importance of food safety	3.32	3.79	0.47	<b>14.16%</b>
Understanding of kitchen safety	3.36	3.78	0.42	<b>12.50%</b>

### Open Ended Responses

Youth were asked what biggest change they have made because of what they learned in the 4-H Food Challenge.

#### Selected responses include:

- **82 youth** indicated they make healthier food choices.
- **32 youth** indicated they better utilize team work skills.
- **23 youth** indicated they practice food safety skills.
- **16 youth** indicated they are more willing to share ideas and listen to others.
- **16 youth** indicated they help prepare more meals at home and/or assist their parents in meal preparation.
- **13 youth** indicated they are more confident when speaking in front of others.
- Other responses included: MyPyramid/nutrients (9), planning a recipe (8), kitchen safety (6), altering recipes (3), substitutions, planning a recipe.



#### Additional responses included that youth:

- Are more confident and “actually like to cook”
- Learned more about team work, communication, and idea sharing
- Are more creative when cooking and are willing to try new foods

### Demographics



Demographic	Percent	Number
<b>Ethnicity</b>		
Hispanic	6.1%	13
Non-Hispanic	93.9%	199
<b>Race</b>		
White	86.7%	196
American Indian	5.8%	13
Asian	0%	0
Black	5.8%	13
Other Racial Group	6.2%	14

Demographic	Percent	Number
<b>Gender</b>		
Male	29.1%	64
Female	70.9%	156
<b>Age</b>		<b>46</b>
Ages 10 and younger	20.7%	86
Ages 11-13	38.8%	90
Ages 14-18	40.6%	

### FUTURE IMPLICATIONS

Youth indicate they are learning more about healthier lifestyle choices, teamwork, speaking, and they are having fun while doing it. The Texas 4-H & Youth Development Program in District 8 will continue to educate youth through the 4-H Food & Nutrition project and will continue to offer the 4-H Food Challenge as an opportunity for 4-H members to showcase the knowledge and skills they gain in their project work in the setting of a friendly competition.



For more information, contact:

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