



## Extension Education in Hidalgo County

# Making a Difference

# 2016

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The Texas A&M AgriLife Extension Service and its partners have long been dedicated to educating Texans. Extension education evolved nationwide under the 1914 federal Smith-Lever Act, which sought to extend university knowledge and agricultural research findings directly to the people. Ever since, Extension programs have addressed the emerging issues of the day, reaching diverse rural and urban populations.

In Texas, all 254 counties are served by a well-organized network of professional Extension educators and some 100,000 trained volunteers. Extension expertise and educational outreach pertain to the food and fiber industry, natural resources, family and

consumer sciences, nutrition and health, and community economic development. Among those served are hundreds of thousands of young people who benefit annually from Extension's 4-H and youth development programs.

Texans turn to Extension education for solutions. Extension agents and specialists respond not only with answers, but also with resources and services that result in significant returns on the public's investment. Extension programs are custom-designed for each region of the state, with residents providing input and help with program delivery. Here are just a few highlights of Extension impacts on this county and its people.

## **Hidalgo County – Summary of 2016 Educational Contacts**

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Total Contacts: 277, 264

Total Educational Events: 93,504

Total Contact Hours at Educational Events: 165,144

4-H Clubs: 25

4-H Member Enrollment: 647

4-H Adult Leaders: 107

Master Volunteers: 171

Total Volunteers: 414

Web Page Views: 91,329

## Agriculture and Natural Resources

### Rio Grande Valley Beef Development Program

***Developed by Brad Cowan, County Extension Agent- Agriculture, Hidalgo County; Dr Enrique Perez, County Extension Agent- Agriculture, Cameron County ; Omar Montemayor, County Agriculture Extension Agent- Agriculture, Starr County; Matthew Rodriguez, County Agriculture Extension Agent- Agriculture, Willacy County; Vidal Saenz, Extension Agent- CEP and Ronnie Zamora, Extension Agent, Community and Economic Development.***

#### Relevance

Beef producers can improve their herd or the herds of their customers through more rigid sire selection. Replacement heifers will perform to higher levels when in optimum body condition. Beef producers want to increase the value of bulls by collecting feedlot performance data and carcass characteristics. The Rio Grande Valley Beef Improvement Association identified the need to conduct a bull gain test and heifer development program in 1998 to support the beef cattle industry and it has been conducted each year since.

#### Response

Texas A&M Agrilife Extension conducted an official 112 day bull gain test and a 126 day heifer development program. Numerous data are collected on all animals including: initial and final weights, average daily gain, body condition score, scrotal circumference, sheath score, reproductive tract score, pelvic area measurements, hip height and ultra-sound measurement of backfat thickness and ribeye area. All data is provided to consignors and to the public.

#### Results

A total of 8 group methods were conducted. A bull gain test and heifer development program has been conducted each year from 1998 through 2016. Participants indicate a positive economic benefit to their beef cattle operations as a result of their participation.

A total of 1348 bulls, 1029 heifers and 142 steers have been entered in the 19 years the program has been conducted. In the current program, 25 consignors have entered 101 bulls and 33 heifers. Cattlemen from 10 different counties from throughout south and central Texas are participating in the current program.

Recognition events are conducted during the Rio Grande Valley Livestock Show in order to recognize the award winners in front of their beef cattle producer peers and the public. The Santa Gertrudis, Simbrah, Beefmaster, Simmental, and Brahman awards were each presented during the open show for their particular breed. A feeder pen of steers is also offered and adds a different dimension to the program.

Bull Gain Test and Heifer Development Program participants were surveyed to measure program effectiveness. Final survey results are pending but a preliminary look at responses provided the following: What respondents liked best about the program included updated information, small breeder needs bull data, used data to compare sire and dam groups, gives more emphasis to other traits rather than just rate of gain, economical, good data, like the way the animals look at the end, like to be kept posted, economical to participate in, use the data in selection decisions. A total 50% of

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the respondents said that as a result of their participation in the program they financially benefitted in the range of \$1000-5000 annually, 16% reported more and 33% reported less.

Important collaborators were: Dr. Joe Paschal, Extension Livestock Specialist, Rio Beef Feed Yard management and personnel, Rio Grande Valley Livestock Show officials & volunteers and the members of the Rio Grande Valley Beef Improvement Association. New energy was provided during the planning process this year by the Rio Grande Valley Beefmasters Association. They see the value that performance tested bulls can bring to their bull sale. A number of their members consigned bulls to the program this year for the first time. County agricultural agents from 5 counties are conducting the program with assistance from the above collaborators.

### Future Plans

In cooperation with the Rio Grande Valley Beef Improvement Association, plans are to continue the program and perhaps consider marketing alternatives for participants. Another future possibility will be to offer an artificial insemination program for heifers.

The Rio Grande Valley Beef 706 program is being planned for 2017. It is a three-part series of hands-on sessions focusing on beef quality management. This beef checkoff-funded program is designed to help producers maximize profits and have a better understanding of the production process after their cattle enter the feedyard.

V A L U E	
Livestock Production	
	<p>Texas A&amp;M AgriLife Extension programs targeted to large- and small-scale livestock producers help generate safer food and fiber products with maximum efficiency. The result is quality, consistent, affordable products and industries that support the state's rural economies.</p>

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### Hidalgo, Cameron, Willacy County Crop Production Program

*Developed by Brad Cowan, County Extension Agent- Agriculture, Hidalgo County; Dr. Enrique Perez, County Extension Agent- Agriculture, Cameron County and Matthew Rodriguez, County Extension Agent- Agriculture, Willacy County*

#### Relevance

Each year approximately 400,000 acres of grain sorghum are grown in the Rio Grande Valley. The Sugarcane Aphid, a potentially damaging insect was identified for the first time in 2013. The Hidalgo County Crops Committee determined that educational efforts should be initiated to address this damaging insect. The Cotton & Grain Producers Association of the Lower Rio Grande Valley supported continued educational efforts going into 2015 to insure that growers would be ready to save their crop from severe damage if insect populations threatened to cause economic damage. These efforts continue to be very important.

Nutrient management is an important economic and environmental issue that affects water quality, soil quality and crop productivity. The Arroyo Colorado Watershed Partnership and The Texas Water Resources Institute determined a continued need to stress soil testing as a best management practice.

Producers continue to need locally produced information on the performance of crop varieties. Also, new and underutilized crops need to continue to be investigated such as soybeans and sesame. The Cotton & Grain Producers Association of the Lower Rio Grande Valley continue to support the need for crops result demonstrations.

As a result of forecasts for continued weak commodity prices, the Crops Committee and others identified the need for producers have the latest marketing information that they can use to manage risk.

#### Response

A total of 12 group methods resulted in a total of 2886 contact hours of education. Ag producers were educated on the sugarcane aphid, fertility management, variety performance data and a host of other timely topics. Educational events included the Cotton & Grain Pre-Plant Conference, field days, Sugarcane Aphid Meeting and Spring Crop Options Meeting. Other tools utilized included: publications, use of print and broadcast media, information posted to the County Extension Office web site, close communications with crops committee members, input from members of the board of directors of the Cotton & Grain Producers Association of the Lower Rio Grande Valley and involvement of Extension Specialists.

A three county soil testing program was conducted for the 16th consecutive year in 2016. This year, a total of 217 soil samples representing 7725 acres of agriculture production fields were submitted to the soil testing laboratory in College Station for analysis. Fertilizer recommendations were then provided to the growers for the specific crop to be grown. Over the past 16 years, 6681 samples have been submitted by local producers from a total of 227,129 acres.

Research demonstrations conducted on producer farms were used to produce an unbiased source of performance data that are used by growers to help determine the most profitable varieties to select for this area. Ongoing efforts to increase producer profits also included rating grain sorghum

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variety trials for differences among varieties in their tolerance to the sugarcane aphid and it's damage.

A two day cotton and grain marketing workshop was planned and conducted. Although not as intense as the famous Master Marketer Program that has educated Texas producers since 1996, this two day workshop introduced many of the concepts and tools available to producers that will enable them to minimize risk and sharpen their marketing skills, skill that are proven to provide an economic return to participants' farm operations.

### Results

Educational efforts by Texas A&M AgriLife Extension to battle the sugarcane aphid were credited with a net savings to grain sorghum producers of \$66 million in 2014. Although the aphid did not cause widespread damage in 2016, producers were ready due to ongoing educational outreach by Extension.


The economic impact of the RGV Nutrient Management Education Program was measured in terms of potential fertilizer savings that have resulted from increased adoption of soil testing. Reduction in fertilizer application rates translates into an average cost savings of \$25 per acre, depending on crop and management history. This is a potential savings of \$193,125 in 2016. The total potential economic benefit to producers since the program began in 2001 is estimated to be \$5.7 million. This analysis does not include the value of environmental benefits. Local water bodies, including the Arroyo Colorado benefit from producer efforts to match the application of fertilizers to crop fertility requirements through scientific soil testing. This year's survey of participants documented that 97 percent of participants were satisfied with the sample response time, 80 percent of participants plan to follow the recommended fertilizer rates and 93 percent of participants felt that the test results were accurate.

Performance data from three result demonstrations conducted to evaluate grain sorghum and cotton variety performance under local commercial conditions were shared with producers to assist them in making more economical choices for their next crop season. Of special significance again this season was the county grain sorghum trials as the search is on for varieties that show tolerance to sugarcane aphids. This is being studied closely by many involved in the production of grain sorghum including growers, seed companies, Extension specialists, marketing companies and buyers. The IPM agent collected in-season data from the county result demonstrations.

Important collaborators included: Dr. Gaylon Morgan, Dr. Calvin Trostle, Dr. Tom Isakeit, Dr. John Robinson, Dr. Mark Welch, Dr. Luis Ribera, Dr. James Grichar, Danielle Sekula, Victor Gutierrez, Dr. Samuel Zapata, Dr. Femi Alabi, Rio Farms, Inc., Lower Rio Grande Valley Cotton and Grain Producers Association, Texas Farm Bureau, Farm Service Agency, Natural Resources

**VALUE**

**Crop and Forage Production Education**



Extension programs in crop production promote best practices that lead to reduced irrigation, safer pest management, and improved profitability of agricultural enterprises. This benefits Texas as a whole by contributing to the quality and quantity of water resources and enhancing both agricultural competitiveness and rural economies.

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Conservation Service, Texas Grain Sorghum Association, National Cotton Council, Texas Water Resources Institute, Texas Department of Agriculture, the Texas Boll Weevil Eradication Foundation and numerous local ag industry company representatives.

The two-day marketing workshop included a pre and post-test evaluation. This evaluation included pre and post expectations of grain and cotton prices, as well as pre and post acreage intentions. This data will be used to eventually estimate dollar impacts from the program's influence on acreage allocation following the conclusion of the 2017 crop season. In the meantime, over a range of nine pre/post questions testing knowledge of hedging concepts, a 15% gain in knowledge was measured, as reflected by the percent of previously incorrect responses that shifted to the correct response.

### Future Plans

Continue to keep producers up-to-date with new information on the sugarcane aphid and its management. Continue the soil testing campaign contingent upon funding. Continue important hybrid trails for the major crops in cooperation with local producers, seed companies and Extension Specialists. The Crops Committee will determine the need to repeat the marketing workshop. Agents and volunteer committee members will continue monitoring the local agriculture scene for emerging issues Extension is qualified to address.



Hidalgo County Sheriff's Department personnel presenting a program on prevention of fruit theft at the annual citrus growers meeting under the direction of Deputy Aaron Moreno. This became the "hot topic" of the meeting, resulting in lots of positive discussion and interaction between local growers and Sheriff's Department personnel.



A two day workshop was held where ag producers received intensive training on cotton and grain marketing.



Local ag leaders receive a tour of a refurbished grain handling facility at the Port of Brownsville. This facility may play an important role in exporting locally produced ag commodities.

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### Hidalgo & Cameron County Pesticide Safety Program

*Developed by Brad Cowan, County Extension Agent- Agriculture, Hidalgo County and Dr. Enrique Perez, County Extension Agent- Agriculture, Cameron County*

#### Relevance

Agriculture producers have a statutory requirement to obtain and maintain a pesticide license issued by Texas Department of Agriculture in order to use some crop protection chemicals. These are important tools for agricultural producers and Extension is relied upon to provide the education needed in this process. In addition, many school district, city, county, state and federal employees need to have a pesticide license for their work. Local training is provided for those needing to obtain a pesticide license and continuing education is provided to local license holders in order for them to be knowledgeable in the safe and efficient use of crop protection chemicals and to be able to meet the requirements to renew their license. The Hidalgo County Crops Committee continues to affirm that these efforts are important.

#### Response

Educational training events were planned and conducted to meet statutory requirements for producers to be able to obtain a license. Continuing education units were also provided to all participants at educational events conducted which contained applicable subject matter. A listing of continuing education opportunities was kept on the Extension Office web page as a tool for local producers to learn of these meetings. Also, an extensive email list of local license holders is maintained to use as a primary communication tool to inform license holders of continuing education opportunities. In addition, this agent generated and maintains an extensive list of cell phone numbers of license holders which is used to send text messages to remind license holders of upcoming meetings.

#### Results

656 persons attended 24 group methods which resulted in a total of 1845 hours of continuing education contact hours. The economic value of the CEU's earned is estimated to be over \$48,000. In addition, four Pesticide Safety Training meetings were conducted in 2016. A total of 58 persons attended the five hour course which is required in order to obtain a private pesticide license issued by Texas Department of Agriculture. This resulted in a total of 290 contact hours of classroom instruction.

Aerial applicators have specific requirements for continuing education and those needs were met by conducting an educational training meeting specifically for them. This allowed them to obtain their required training without traveling outside of the local area. The aerial applicators are very appreciative of being able to obtain the training from Extension.

The 24 group method events were each reported to TDA by submitting the required documents to the state regulators.

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Important collaborators were: members of the Crops Committee, board members of the Cotton & Grain Producers Association of the Lower Rio Grande Valley, Dr. Don Renchie and Dr. Mark Matocha, Agricultural & Environmental Safety Specialists and state & local personnel with Texas Department of Agriculture.

### **Future Plans**

This effort will continue in the future to meet the needs of local agricultural producers and others needing a pesticide license.

## Agriculture and Natural Resources

### Hidalgo and Cameron County Small Acreage Production

*Developed by Ashley Gregory, County Extension Agent-Horticulture, and Jennifer Herrera, County Extension Agent-Horticulture, Cameron County, Dr. Samuel Zapata, Assistant Professor and Extension Specialist - Agricultural Economics*

#### Relevance

The Lower Rio Grande Valley (LRGV) leads the nation in terms of the percentage of population living in poverty and number of persons without educational degrees at all levels. As a result, most small producers have limited formal education on sustainable and profitable production practices. In order to build a sustainable agricultural future and maximize the LRGV's diverse agricultural production, it is essential to train its socially disadvantaged farmers and ranchers on better farming techniques. USDA Census of Agriculture reports that 22% of Cameron County and 25% of Hidalgo County farms are less than 9 acres.

Agricultural profitability, economic development, food security and sustainable food systems were all identified as critical issues during the 2015 Cameron and Hidalgo Counties Futures Forums. In the last three years there has been a rapid development of farmers markets throughout the LRGV. There are 6 established markets and 5 markets that are in the developing stages.

#### Response

Advisory boards from both Cameron and Hidalgo Counties met to develop the Small Acreage Production Workshop series. Workshops were conducted by a multidisciplinary team of Texas A&M AgriLife Extension specialists, County Extension Agents, and local experts and growers. The major programmatic goal was to train socially disadvantaged, beginning, young, veteran, small farmers and ranchers in marketing and business planning, crop production, irrigation and water management.

- Backyard Hens, 3/24/16, 77 participants
- Grape Growing 101/Home Wine Making, 6/24/16, 25 participants
- Marketing Resources and Tools for Local Growers, 6/30/16, 21 participants
- Production Resources and Tools for Local Growers, 7/22/16, 10 participants
- Vegetable Production for Local Growers, 8/25/16, 42 participants
- MarketReady Training: Selling to Local Restaurants, 9/23/16, 26 participants
- Organic Production for Local Growers, 10/26/16, 29 participants
- Aquaponics for Local Growers, 10/27/16, 45 participants

#### Evaluation Strategy

A retrospective post survey was administered to all participants at the end of the each small acreage production training.

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### Results

Over 250 farmers attended the workshop series. On average, evaluation results indicated that there was a 50% increase in knowledge gained as a direct result of the workshops. Additionally 70% of respondents anticipated a positive economic benefit averaging \$331 per participant.

**Table 1. Percent of participants reporting “Good” or “Excellent” knowledge level before and after the workshops**

Workshop Topics	Before	After
Home Egg Production (n=57)	27	92
Vegetable Production (n=33)	42.5	66.7
Selling to Restaurants (n=14)	21	92
Organic Production (n=17)	35	77
Aquaponics Production (n=31)	6.5	77

**Table 2. Percent of participants that anticipate an economic benefit from the workshops**

Workshop Topics	Yes
Home Egg Production (n=57)	44
Vegetable Production (n=26)	88
Selling to Restaurants (n=10)	80
Organic Production (n=17)	59
Aquaponics Production (n=26)	50

**Table 3. Percent of participants that plan to either mostly or completely adopt practices from workshops**

Workshop Topics	Yes	Not Sure
Home Egg Production (n=57)	23*	30
Vegetable Production (n=34)	50	38
Selling to Restaurants (n=14)	50	36
Organic Production (n=17)	35	47
Aquaponics Production (n=31)	36	36

\*28% had already adopted

### Future Plans

Based on suggestions from the evaluations the 2017 Small Acreage Production series will include workshops on Good Handling Practices, Tropical/Subtropical fruit trees, Integrated Pest Management, and soil. Cooperative Extension Program (CEP) Agents from Hidalgo and Willacy Counties will be joining the planning group to add expertise in the areas of community development and small farm outreach and technical assistance. Advisory boards have already scheduled the first planning meeting for January 2017.

## Agriculture and Natural Resources

# Growing and Nourishing Healthy Communities Program

*Developed by Ashley Gregory, County Extension Agent – Horticulture  
and Dr. Jenna Anding, Professor and Extension Specialist, Ricardo Carranza, Grant Program  
Assistant, Roy Custodio, Grant Program Assistant and Andrea Torres Barragan, Grant  
Program Assistant*

### Relevance

In Hidalgo County, an estimated 251,554 individuals receive benefits from the Supplemental Nutrition Assistance Program (SNAP), historically known as food stamps. Studies have shown individuals who live in poverty (including SNAP recipients) have dietary intakes that are not in agreement with current recommendations especially when it comes to consuming vegetables and fruits. In addition, low-income families often live in neighborhoods with limited access to healthy foods (i.e. food deserts), compounding the challenge of eating a healthy diet.

### Response

The Growing and Nourishing Healthy Communities (GNHC) program is a cooperative endeavor among Texas A&M AgriLife Extension Service, Texas Health and Human Services Commission (HHSC), and the Food and Nutrition Services (FNS) of USDA. A component of the Supplemental Nutrition Assistance Program (SNAP), GNHC works with local partners to establish community gardens in communities identified as a food desert. Targeted towards SNAP recipients (and those eligible for benefits), the program's goal is to improve availability and accessibility of vegetables and fruit in the home by teaching participants (1) how to build gardens and (2) the skills needed to successfully grow and harvest fresh produce. The community gardens also serve as an outdoor classroom for participants who want to apply their knowledge at home (i.e. backyard garden). The program also includes nutrition education from Extension Better Living for Texans (BLT) educators to help participants learn how to incorporate their fresh produce in healthy and budget-friendly recipes.

### Evaluation Strategy

The program is evaluated by assessing the amount of produce harvested and participant feedback via retrospective post evaluations. During 2016, 242 Hidalgo County adults completed the GNHC program; 29 participants completed the retrospective post surveys.

### Results

#### ***Participant Characteristics***

Participants were primarily female (79%) and Hispanic (93%). More than 15% of the participants (n=5) had not completed high school; 24% (n=8) had completed high school and 58% (n=19) had completed some college or a college degree. Average household size of the participants was 3.4 and the average age of participants was 45. 13 of the 29 participants (45%) received SNAP benefits while 7 (24%) reported having children living in the household who received free or reduced price meals at school. More than 37% (n=11) reported they had grown vegetables or fruits before and more than 83% of the participants (n=24) identified the GNHC program as the first Extension program they had attended.

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### Gardens

A total of 8 community gardens have been established in Hidalgo County through the GNHC program yielding more than 1,730 pounds in 2016. Broccoli, Swiss chard, tomatoes and spinach were the vegetables grown most often.

### *Impact of the Gardens on Availability and Accessibility of Vegetables and Fruits in the Home*

Compared to when the program ended, there was statistical increase in the frequency of serving fruit as a dessert and having vegetables as a snack in the home. (Table 1). There was also a statistical trend in having more vegetables served as meals and having them cut-up and available in the refrigerator, suggesting that availability and accessibility of vegetables and fruits in the home were improved.

**Table 1. Availability and Accessibility of Vegetables and Fruits in the Home**

Question	Average Response* Pre	Average Response Post	Significance
We have fruits and vegetables in my home.	2.89	3.44	.001
In my home vegetables are served at meals.	2.59	3.41	.001
In my home, fruit is served for dessert.	2.27	3.00	.001
In my home, there are vegetables available to have as a snack.	2.46	3.36	.001
In my home, there is fruit available to have as a snack.	2.43	2.46	.001
In my home, there are cut-up vegetables in the fridge for me and my family to eat.	2.29	3.07	.001
In my home, there is fresh fruit on the counter, table or somewhere else where I and my family can easily get them.	2.54	3.43	.001

\*Based on a 4-part Likert scale: 1=hardly ever; 2=sometimes; 3=often; 4=almost always. \*\*NS means no change from a statistical standpoint although an upward trend is always encouraging.

### Summary

These results suggest that the GNHC program is playing an important role in improving the availability and accessibility of fresh produce (particularly vegetables) in the home of the GNHC participants. Although not shown, participants who reported a significant increase in self-perceived knowledge/skills related to gardening. Overall, more than 89% of the participants (n=26) rating their gardening knowledge and skills as either “good” or “excellent” at the end of the program.

## Agriculture and Natural Resources

### Master Gardener Intern Training Program

*Developed by Ashley Gregory, Hidalgo County Extension Agent – Horticulture*

#### Relevance

Horticulture related issues such as vegetable gardening, native landscaping and water conservation reach across a large audience from homeowners to city and county parks and recreation departments. There is a consistent demand for horticultural information and resources. According to the U.S.D.A. Census of Agriculture, Hidalgo County is ranked 1<sup>st</sup> in the state for fruit and vegetable production, and 17<sup>th</sup> for nursery and greenhouse production. Combined these commodities represent a market value of \$233 million. Critical issues identified for Hidalgo County during our Texas Community Futures Forum (TCFF) included water conservation, food security and sustainable food systems, both of which are covered in the Master Gardener Training program.

#### Response

Each year the Master Gardener Training Program (MGTP) educates and trains a select group of volunteers in the area of horticulture. Hidalgo and Cameron County Master Gardener Planning committees collaborated to plan the 2016 MGTP as a multicounty effort to increase collaboration between the groups to better serve our region. Four of the eight classes were held together to highlight experts and geographical features unique to each county.

In 2016, eight interns were selected to participate in the program. Program interns received 50 hours of instruction over 8 weeks, focusing on localized information and practical knowledge in areas such as: Plant Growth and Development, Soils and Composting, Fruit Trees and Herbs, EarthKind Principles, Native Plants, Tree Care and Pruning, Vegetable Gardening, Pest and Disease, and Container Gardening. The Master Gardener planning committee put together a diverse group of presenters, tours and demonstrations that included Texas A&M AgriLife Specialists and Researchers, TAMUK Professors, City Foresters, local experts and business owners, and Master Gardener Specialists. They also planned tours of a local fruit tree nursery, the National Butterfly Center, and a city composting facility. Hands on activities included grafting, air layering, tree pruning and using a microscope to identify various pest and pathogens.

Educating volunteers in local horticultural topics and training them to teach the community allows us to increase the number of people we educate. Working with the Hidalgo County Horticulture Agent, Master Gardeners hosted 36 workshops reaching over 750 people in 2016. They volunteered a total of 3,277 hours equating to \$77,206 saved by the county.

#### Evaluation Strategy

Interns were given a retrospective post evaluation to assess their overall satisfaction with the program as well as their change in knowledge and willingness to adopt new practices.

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### Results

Responses from the retrospective post evaluation showed that all interns increased their knowledge or level of understanding in key horticultural topics covered in the program, as illustrated in Table 1. Comments from the evaluations indicated that all participants felt they learned from the program and would recommend it to others.

**Table 1:** Percent reporting “Good” or “Excellent” knowledge level before and after the program (N=8)

Horticultural Topics	Before	After
Knowledge on Tree Care and Management in the Landscape	25	100
Understanding of Soils and Soil Fertility	12.5	100
Knowledge of Plant Growth and Development	25	87.5
Knowledge of Plant Disease	12.5	87.5
Understanding of Insects in the Garden	12.5	87.5
Knowledge on Herb Gardening	25	87.5
Knowledge on Native Plant Species/ Butterfly Species	12.5	87.5
Knowledge on Tropical Plants and Fruit Trees	25	100
Knowledge on Vegetable Gardening	12.5	100

### Future Plans

The Master Gardener Training Program will continue to be held annually. The planning committee will be implementing a continued education plan for interns where each week a different veteran Master Gardener would offer a 30 minute educational presentation at the garden. Plans for 2017 include a specialized MGTP for Winter Texans to be held in early Spring 2017.

## Agriculture and Natural Resources

# Financial, Marketing and Production Management Cooperative Extension Program (CEP) Prairie View A&M University

*Developed by Vidal H. Saenz, Extension Agent-CEP (Farm Advisor)  
Serving Hidalgo, Cameron, Willacy and Starr Counties*

### Relevance

The Rio Grande Valley, which is composed of Hidalgo, Cameron, Willacy and Starr counties have gone through major agricultural disasters in the last few years. Many socially disadvantaged and limited-resource agricultural producers and rural youth face numerous challenges in obtaining financial resources through commercial lending institutions because of the risk involved in farming and ranching and the local banks unwillingness to lend during these times of economic uncertainty. Many of these producers qualify for financing through USDA-Farm Service Agency, but are not aware of their programs or are overwhelmed by the paperwork involved in USDA's loan applications. Knowing that loan funds are available through USDA-Farm Service Agency, it is important that Extension offer support in financial planning and management to fill out the necessary paperwork correctly and remove all of the obstacles that impede agricultural producers from applying for these loans.

### Response

The purpose of our program is to enhance the business management and marketing skills of agricultural producers who utilize our services. Targeted clientele will learn how to keep and improve production and financial records and generate personal and farm financial statements for their use in financial resource acquisition. This plan will address a wide range of activities such as livestock production, crop production, and financial management, marketing and applying for assistance under USDA programs.

The Cooperative Extension Program's Small Farm Outreach Training and Technical Assistance Program in Hidalgo County developed the following activities to address this relevant issue:

- Co- hosted an event called, Soil Health & Irrigation Conservation Workshop. This program was held in Weslaco, Texas at the District 12 Texas Agrilife Extension headquarters on August 24, 2016. The program's primary focus was to look at weather-based tools for irrigation management, soil health for maximum productivity, nutrient management and outreach of USDA Programs. Over 60 ag producers were in attendance at this Program.
- Co-hosted a Market Ready Training: Selling to Restaurants for Local Growers. Dr. Marco Palma spoke about opportunities for the local growers in selling their produce directly to local restaurants. Ms. Nelda Barrera from the Texas Department of Agriculture spoke about the Go Texan program and about trade and business development. I provide outreach on USDA-Farm Service Agency's loan programs and answered questions from producers. 80% of the program participants indicated that they anticipate a positive economic benefit as a direct result of the Program.
- The Small Farm Advisory Committee advised me to provide outreach on our program and programming efforts through the local media, educational events and one-on-one farm visits with prospective producers. I provided several articles in the Valley Morning Star, The

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Monitor, Starr County Herald and Willacy County Chronicle that served as outlets of outreach for our program. As a result of this, survey showed that 25% of the program participants learned about our program through these newspapers. Other means of outreach included: a commodity report for the members of the Starr County Farm Bureau at their annual membership drive dinner in Rio Grande City, Texas. The commodities included cattle, cotton and grains. The event took place on September 21, 2016.

I provided outreach on USDA-Farm Service Agency loan programs at many Extension events, workshops and field days throughout the Rio Grande Valley in 2016. I also collaborated with the Rio Grande Valley Agricultural Extension Agents and Ag Science Instructors to provide outreach on USDA's Youth Loan Program to 4-H and FFA members and parents.

- Collaborated with the County Agricultural Agents in Starr, Hidalgo, Cameron and Willacy counties by providing educational programs focused on sustainable agriculture. These programs ranged from best management practices to control brush, nutritional practices for beef cattle and performance testing on bulls and heifers.
- Sixty eight, six-hour, one-on-one financial planning and management sessions were provided for producers and youth seeking agricultural loans from USDA-Farm Service Agency.

### Evaluation Methods/Results

A two-page retrospective post evaluation form was administered to a cross section of the program participants. The survey was used to determine the level of clientele knowledge gained by the educational programming that was provided.

### Collaborators

Texas Farm Credit, Elsa State Bank, Ry Livestock Sales, Inc., Hidalgo & Starr Counties Farm Bureau, Texas-Mexico Border Coalition, USDA-Natural Resources Conservation Service & USDA-Farm Service Agency.

### Results

The following results were shared from the program evaluations to indicate the achievements of the Program:

- 96% of the program participants gain knowledge of USDA-Farm Service Agency's Direct and Guaranteed Loan Programs.
- 94% of the program participants gained the knowledge to develop a farm operating budget for their operation in 2016.
- 90% of the program participants said that they gained the knowledge necessary to keep production and financial records for securing financing for their farming and ranching operations.
- 100% of the program participants found out what their net worth (owner's equity) was at the end of the Program.
- 75% of the program participants said that they gained the ability to fill out a USDA-Farm Service Agency loan application properly, without any assistance needed, but would continue to use the program's services if still available.

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### Summary

All of the program participants that were able to submit a complete direct loan application to USDA-Farm Service Agency because all of the obstacles that impeded their full participation in the program were removed. They were able to save a 2% fee on their loan requests by not utilizing the services of a private loan consultant. The total money requested for 2016 amounted to \$6,341,680. This amount multiplied by 2%, totals \$126,833.60, which is the amount that an independent loan consultant would have charged. This was an average savings of \$1,865.20 for each of the sixty eight participants.

## Agriculture and Natural Resources

### Livestock and Forage Plan

***Developed by Vidal H. Saenz, Extension Agent-CEP (Farm Advisor)  
Serving Hidalgo, Starr, Cameron and Willacy Counties***

#### Relevance

Agricultural producers from the Rio Grande Valley have been in a tough economic situation for many years due to weather -related events such as extended drought. Because of this, they have endured large production and financial losses. Small-scale agricultural producers from the Rio Grande Valley have long been underserved. Many are not aware of the programs and services that are available from USDA and other Agricultural agencies, such as: USDA-Farm Service Agency loans, USDA-Farm Service Agency commodity programs, USDA- Natural Resource Conservation Service Programs and USDA-Rural Development programs. Many ag producers do not know that the Texas Agrilife Extension Service and Cooperative Extension Program at Prairie View A&M University have Specialists that can help them with their ag production needs. The majority of the small-scale ag producers in the Rio Grande Valley are Hispanic.

#### Response

The Cooperative Extension Program hosted a series of educational events to address new and existing risk management products and services that increased knowledge and skills of ag producers by making them aware of the different types of programs available from USDA and the Extension Service. We also helped provide outreach on the programs and removed the obstacles that impeded them from utilizing these services. The targeted clientele were able to utilize: low interest farm loans, cost-sharing programs, housing programs and knowledge from Specialists in their line of production.

The following educational activities were organized, with the input and assistance of the Hidalgo County Small Farm Advisory Committee.

- Hosted a South Texas Beef Production & Brush Control Workshop in San Isidro, Texas on June 2, 2016. At this meeting, the program provided education on proper forage management techniques for rangeland, cattle marketing, genetic improvement in cattle and chemical brush control. Over 140 program participants were in attendance. As a result of program, 85% of participants gained knowledge in the above listed topics.
- Provided outreach on USDA-Risk Management Agency's Pasture, Range and Forage Program to Starr County ranchers who attended the 2016 Starr County Farm Bureau Annual Meeting. I presented information to over 100 members who were in attendance. Information provided included sign-up dates, pasture and hayland insurance policies and it's benefits. Other information included commodity updates for livestock, corn, sorghum, soybeans and cotton.
- Utilized local crop insurance agents from the Rio Grande Valley to provide outreach on USDA-Risk Management Agency's Pasture, Range and Forage Insurance Program.

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- Provided outreach on the sign-up deadlines for the Pasture, Range and Forage crop insurance program at various producer meetings held throughout the county.
- Utilized USDA-Farm Service Agency staff to provide updates on government disaster assistance programs and cost-sharing programs.
- Co-hosted a Starr County Ranchers Program on October 27, 2016 in La Grulla, Texas. The program offered information on the following: property tax valuations and ag exemptions, ranch diversification, chronic wasting disease in Texas deer populations, drone technology and outreach of USDA-Farm Service Agency loan programs. There were 60 producers in attendance.
- Agent shared the results of this plan with local County Commissioners Court and Leadership Advisory Board and other stakeholders.

### Evaluation Method

A one-page retrospective post test evaluation form was administered to each participant. The survey was used to determine the level of clientele knowledge change required by the educational programming.

**Collaborators** – The following businesses assisted with resources to make this program possible:

- USDA-Farm Service Agency
- USDA-Risk Management Agency
- RY Livestock Sales, Inc.
- Starr Soil and Water Conservation District
- Texas-Mexico Border Coalition
- Starr County Farm Bureau

### Results

The following results are shared from the program evaluation to indicate the achievements of the project:

- 91% of participants gained knowledge of USDA cost-sharing programs.
- 91% of participants gained knowledge of beef cattle management practices.
- 77.3% of participants gained knowledge of range management tools to maximize forage production.
- 91% of participants gained knowledge of culling strategies in their cow/calf operations.
- 87% of participants gained knowledge of drone technology in modern ranching.
- 90% of participants gained knowledge of USDA-RMA Pasture, Range and Forage Insurance Program (Rainfall Index)
- 81.8% of participants gained knowledge of USDA-FSA programs and services

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### Summary

This program appeared to build knowledge and change perceptions concerning risk management and ranching practices. Producer responses indicate that they have a better appreciation for USDA-Risk Management Agency, USDA-Farm Service Agency and USDA-Natural Resources Conservation programs. This program will continue, addressing new government programs as they become available. Due to responses on the surveys, I will be working with the Small Farm Advisory Committee to concentrate on more programming towards Cameron and Willacy counties. I have seen an interest from producers in these counties that need more educational programming to assist them in their livestock operations.

## VALUE

### Livestock Production



Texas A&M AgriLife Extension programs targeted to large- and small-scale livestock producers help generate safer food and fiber products with maximum efficiency. The result is quality, consistent, affordable products and industries that support the state's rural economies.

## Family and Consumer Sciences

### Food Protection Management

*Developed by Andrea Valdez, County Extension Agent-Family & Consumer Sciences*

#### Relevance

Each year, an estimated 1 in 6 people become ill from the food they eat. Common symptoms of foodborne illness include nausea, vomiting, diarrhea, abdominal cramping, fever and headache. While some people may view this as a mere case of “food poisoning” foodborne illness has serious health and economic consequences. In fact, foodborne illness from five pathogens alone (Campylobacter, Salmonella, Listeria monocytogenes, E.coli O157:H7, and E. coli non-O157:H7 STEC) cost more than \$6.9 billion in medical expenses, lost productivity, and even death. All of us are at risk for foodborne illness, but older adults, pregnant women, young children, individuals with chronic disease, and those with a compromised immune system are at an increased risk. Because nearly half of our food dollars are spent on foods eaten away from home, it is imperative that employees who work in retail food service handle food safely. This program addresses previously identified Texas Communities Futures Forum (TCFF) issues and FCS committee priorities.

#### Response

To meet the need for quality food safety education in Texas retail food establishments, the Food Protection Management (FPM) program was developed. Our two-day certified food manager program prepares food service workers to sit for the state Certified Food Manager exam. Our two-hour food handler program, which is accredited by the Department of State Health Services, trains front line food service workers on the basic principles of food safety. Both programs are conducted at the county level by Extension Agents. In 2016, 12 Food Handler classes were conducted with 172 participants and 9 classes were surveyed and analyzed (127 participants).

#### Results

##### Demographics for Food Handlers Program

- 77% Female
- 93% Hispanic
- 36% had a high school diploma or less
- 64% had not worked in food service previously
- 59% had never had any food safety training

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Evaluation Results			
Question	% Correct Pre-Survey	% Correct Post-Survey	Difference
The removal of dirt, soil, food or grease is cleaning	47%	69%	+22%
The Temperature Danger zone is 41 to 135 degree Fahrenheit	30%	76%	+46%
A person who changes his apron when it gets dirty is the best example of maintaining personal hygiene	63%	89%	+26%
A foodborne outbreak involves 2 people	32%	87%	+55%

Mean score pre-test- 69

Mean score post- 86

**There was a statistically significant increase in test scores suggesting a 23% increase in knowledge regarding food safety.**

## VALUE

### Food Safety Education



Both those who work in food-service establishments and those who simply cook in their own kitchens benefit from Texas A&M AgriLife Extension's food-safety education programs. The resulting improvement in safe food handling benefits consumers by helping prevent food-borne illnesses and the public health care costs they cause.

## Family and Consumer Sciences

### Working on Wellness (WOW) Project

*Developed by Andrea Valdez, County Extension Agent-Family & Consumer Sciences  
and Illeana Garcia, WOW Program Assistant*

#### Relevance

Obesity in Hidalgo County is a major public health concern, co-varying with other health and social problems. Of the 232 counties ranked in the 2014 county health rankings (University of Wisconsin Health Institute, 2012), Hidalgo County ranks 225th in health factors, 229th in social and economic factors and 209th in clinical care. The high obesity rate in Hidalgo County is related to other poor health and social indicators. According to the county health rankings, 27% of residents have limited access to healthy foods, and 43% have limited access to exercise opportunities. Almost 1/3 of residents in Hidalgo County report fair or poor health. In 2011, 39% of the population was uninsured and 33% could not see the doctor due to costs. Provider shortages in primary physicians, dentists, and other health care professionals further inhibit access to care (University of Wisconsin Population Health Institute, 2012). Hidalgo County has a childhood poverty rate of 46%, almost double the national average.

#### Response

With a 42% obesity rate, Hidalgo County was the only county in Texas that qualified for this particular grant funding from the Centers for Disease Control (CDC). This 1416 grant funding has two goals: increase access to fresh fruits and vegetables and increase access to physical activity. This grant would provide the opportunity for a beginning collaboration and partnership between Texas A&M AgriLife Extension and Texas A&M Health Science Center which has a School of Public Health campus in Hidalgo County. Serving as the Program Coordinator for Extension, I work with Extension Specialists (Dr. Jenna Anding, Alice Kirk, Michael Lopez, and Dr. Jaime Rae Walker) and a WOW Program Assistant (Illeana Garcia) to further the grant goals in the four targeted communities of Weslaco, South McAllen, Penitas, and San Carlos. 2015 was the first year in this grant and assessments, community coalition development, identification of coalition goals and opportunities and program development were done. 2016 is the second year in this 3-year grant that has recently been extended to include a Year 4.

In 2016, the grant team focused on continued coalition member participation and worked with the coalition members to plan and implement the goals outlined in 2015. All coalition members serve as volunteers on the coalitions and represent partnership from the following agencies: City of Weslaco, City of Weslaco Parks and Recreation, Weslaco Independent School District, Hidalgo County Precinct #1, Hidalgo County Precinct #3, Hidalgo County Precinct #4, City of McAllen, City of McAllen Parks and Recreation, McAllen Housing Authority, The Elks Lodge, Hope Clinic, Valley Interfaith, Methodist Healthcare Ministries of South Texas, The Monitor Newspaper, San Carlos Community Center, Hidalgo County Precinct #4 Parks and Recreation, TAMU Colonias Program, Proyecto Desarrollo Humano, La Joya Independent School District, Buckner International Family Health Center, and Community residents.

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In 2016, the community coalition focused on achieving their tailored goals to promote sustainable environmental changes in their community. The following activities took place:

### Weslaco:

- 10 coalition meetings
- WOW Weslaco High School Celebrates Health: 3 Weslaco High School students sit on the WOW Weslaco coalition and organized a health and physical activity fair at Weslaco High School to promote wellness and physical activity amongst teens. The fair included over 20 booths from multiple agencies and clubs. Over 400 students visited the different booths, learning about healthy eating and taking part in obstacle courses, kickball, and the Healthy South Texas smoothie bike.
- The SPH funding portion of this project worked with City of Weslaco officials to provide the material to restripe multiple streets to include bike lanes as part of the City's goal to create a cohesive bike trail throughout the city.

### South McAllen:

- 10 coalition meetings
- A Fresh Meals for the Summer Cooking Workshop was held in McAllen as part of the coalition's goal to promote healthy eating with simple recipes. Over 30 participants were provided with 6 cooking demonstration and recipe food tasting.
- The McAllen coalition hosted the Crime Prevention through Environmental Design (CPTED) workshop, which allowed 40 participants to receive this certification. CPTED focuses on providing city planners, law enforcement, and others with strategies to combat crime in parks, schools or public places. This workshop allowed coalition members from all the targeted communities to attend and receive the certification as they work to revitalize areas in their communities.

### Penitas:

- 10 coalition meetings
- The Penitas coalition hosted a Pop Up Play Workshop for childcare providers and volunteers to provide education on different play strategies, activities, and tools.
- The Penitas coalition's main focus remains the improvement of Katarina Park. While planning and logistics is still taking place, a groundbreaking for the trail took place as construction on the trail began. Hidalgo County Precinct #3 is a vital partner in this project as they are providing labor and machinery for the trail while the grant funding provides materials needed. The community and the Precinct were very pleased with this groundbreaking as it received great media attention to this high need area.

### San Carlos:

- 10 coalition meetings
- The San Carlos coalition's goals focus on increasing access to fresh fruits and vegetables for their community. A Farmers market or Mercado was started to address this need. The San Carlos Community Center hosted 4 markets this year with 50-150 residents attending each market to buy local produce from local producers and take part in Zumba, obstacle course, or other physical activities offered. Hidalgo County Precinct #4 is an important partner in this

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project and provides labor and market table/tent setup. This market will continue to thrive and expand throughout and beyond the grant funding.

### Results

The Texas A&M Health Science Center School of Public Health is the evaluation team for this project. The evaluation of coalition development and activity results are currently ongoing as this project continues into Year 3.

## VALUE

### Obesity Prevention and Reduction



The Texas A&M AgriLife Extension Service engages children and adults in programs that teach them how to eat nutritious foods and engage in regular physical activity to promote health and reduce their risk for obesity. The Texas public benefits through a healthier population, reduced health care costs, and increased productivity.

## Family and Consumer Sciences

### Better Living for Texans A Fresh Start to a Healthier You!

*Developed by Andrea Valdez, County Extension Agent-Family & Consumer Sciences;  
Frances Flores and Yolanda Rios, Better Living for Texans Program Assistants*

#### Relevance

More than 3.7 million individuals receive benefits from the Supplemental Nutrition Assistance Program (SNAP), historically known as food stamps. Studies have shown individuals who live in poverty (including SNAP recipients) have dietary intakes that are not in agreement with current recommendations (i.e. Dietary Guidelines or MyPlate). This audience, like many, may not recognize their risk for foodborne illness. Having enough food to eat is also a challenge; an estimated 1 in 6 households in Texas experience food insecurity.

#### Response

The BLT Program is a cooperative endeavor among Texas A&M AgriLife Extension Service, Texas Health and Human Services Commission (HHSC), and the Food and Nutrition Services (FNS) of USDA. A component of the Supplemental Nutrition Assistance Program (SNAP), BLT offers food and nutrition education to SNAP recipients, applicants, and other low-income audiences to help improve their ability to plan and prepare nutritious meals, stretch food dollars, and prepare and store food safely. BLT also incorporates gardening and the Walk Across Texas program to promote physical activity and improve access to vegetables and fruits.

During 2016, 280 County adults completed the BLT A Fresh Start to a Healthier You! series. This program focuses on improving vegetable and fruit intake, meal planning, increasing physical activity, and adopting selected behaviors that can reduce the risk of foodborne illness. Of those participants, 279 completed the 30-day follow-up survey which allows us to assess the extent that targeted behaviors were adopted.

#### Results

##### *Participant characteristics*

Average household size was 4.36 persons; the average age of the participants was 45 years. Participation in the selected assistance programs was as follows: SNAP 60%, food pantries or other emergency food assistance 15%, free/reduced school meals 60%, Head Start 5%, TANF 4%, and WIC 11%.

## VALUE

### Better Living for Texans



These nutrition programs teach low-income audiences to prepare nutritious meals, stretch their food resources, improve their food-safety practices, and participate in regular physical activity. This not only improves the quality of life and reduces the risk of chronic disease for participants, but also lowers public health care costs.

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Changes in targeted behaviors were examined by evaluating the pre, post and (where available) follow-up surveys of those individuals who completed the program series.

### Vegetable and Fruit Consumption

Behavior	Pre			Post			Follow-Up	
	N	%		N	%		N	%
<b>Fruit Consumption</b>								
3 or more times a day	17	6		48	17		44	23
<b>Vegetable Consumption</b>								
3 or more times a day	12	4		31	11		39	20

### Meal Planning and Food Management Practices

	Pre			Post			Follow-Up	
	N	%		N	%		N	%
<b>Plan meals in advance</b>								
All or most of the time	113	41		190	70		146	79
<b>Shop for food with a list</b>								
All or most of the time	127	46		219	77		163	85

### Food Safety

	Pre			Post			Follow-Up	
	N	%		N	%		N	%
<b>Wash hands before preparing meals</b>								
All or most of the time	263	93		277	98		193	100
<b>Wash fruits or vegetables before eating or preparing</b>								
All or most of the time	271	96		276	98		193	100

### Change in Physical Activity Behaviors

	Pre			Post			Follow-Up	
	N	%		N	%		N	%
<b>How often are you physically active for at least 30 minutes, five days a week?</b>								
All or most of the time	122	43		193	69		133	69

### Other findings:

85% of the participants identified BLT as their first exposure to AgriLife Extension. This suggests that the program is reaching new audiences who otherwise might not have the opportunity to benefit from Extension programs. 86% of the participants rated the BLT program as “excellent” while 14 % rated the program as “very good.”

In addition, 95% of the participants reported they were “very likely” to recommend BLT to another person; 5% said they were “likely” to recommend the program. In addition, the 93% of participants reported they were “very likely” or “likely” to attend another BLT program.

## Family and Consumer Sciences

### Friend to Friend Cancer Prevention Program

*Developed by Andrea Valdez, County Extension Agent- Family & Consumer Sciences, and Rosa Guel, Friend to Friend Program Specialist*

#### Relevance

The Friend to Friend program's purpose is to encourage women to get regular mammograms and Pap tests for the early detection of breast and cervical cancer, when the disease is most curable.

- Regular screening significantly increases the likelihood of finding cancer early, when treatment is more often successful.
- Women living in rural areas of Texas are less likely than their urban counterparts to have had a mammogram or Pap test within the past two years.
- Mortality is higher for rural women because of later diagnosis.

#### Response

- This project's goal is to decrease breast and cervical cancer morbidity and mortality for women living in rural Texas counties by improving screening rates and early detection of cancer.
- Through a grant from the Cancer Prevention and Research Institute of Texas (CPRIT), funding was provided for screenings and transportation for uninsured and underserved women in need of services.
- The county Extension agent, regional cancer prevention specialist, and patient navigators plan and implement a Friend to Friend event. Women attending are given the opportunity to sign a commitment card to obtain a mammogram and/or Pap test within the next year and the option to complete a help request form for assistance in obtaining screening services.

#### Impact of the Program

- 36 counties held Friend to Friend events throughout Texas in 2016.
- 249 women attended the Friend to Friend events on February 04, 2016 at the First Baptist Church in McAllen, Texas.

#### Results

Demographics of women who attended the events:

- Median age was: 42.
- Latina/Hispanic: 94.8%
- White: 0.4%
- Multiple race/ethnicity: 0.4%
- 17 total volunteers assisted at party/events.
- A Medical Professional, Breast Cancer and Cervical Cancer Survivor urged women to obtain a mammogram/Pap screening at the events.
- At the end of the event 92.5% of women, aged 40 or over, correctly identified the need for a mammogram screening every year.

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- 223 Women requested help to navigate screening and diagnostic services.
- 28 Clinical sites contracted statewide for screenings, diagnostics, radiologists and lab services.
- 253 Mammogram screenings and 36 diagnostics were paid for through CPRIT funds.
- 304 Pap screenings and 52 diagnostics were paid for through CPRIT funds.
- Women were referred to other available sources for Breast and Cervical screenings and diagnostics.

## VALUE

### Cancer Prevention



Participants in Texas A&M AgriLife Extension Service cancer-prevention programs learn ways to reduce their risk of developing many forms of cancer. When participants adopt behaviors that reduce cancer risks, the public benefits through reduced public health care costs and increased productivity.

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### Expanded Food and Nutrition Education Program (EFNEP)

*Developed by Melissa De Leon, Extension Agent-Expanded Food and Nutrition Education Program; Jessica Urgate, Adult Nutrition Education Associate; Amanda Rodriguez, Emilia Padron & Iris Villanueva, Adult Nutrition Education Assistants; Rachel Garcia & Martiza Sanchez, Youth Nutrition Education Associates*

#### Supporting Texas Families with Greatest Need since 1969

The Expanded Food and Nutrition Education Program (EFNEP) helps young families and youth with limited resources-those most risk to suffer from hunger, food insecurity and the inability to connect with available support systems. EFNEP offers practical lessons in basic nutrition, food preparation, food budget management and food safety in settings convenient for the participants. EFNEP also includes a walking program for adult participants. Program graduates reflect significant, lasting improvement in eating behaviors and healthy food habits. Texas has a need for EFNEP-2014 data show that 20% of Texas families with children under the age of 18 were living below poverty, compared to 18% of U.S. families.

#### EFNEP Reaches Diverse Audiences in Hidalgo County

In Hidalgo County, ethnically diverse EFNEP nutrition assistants reach youth and adult groups whose principal language may be English or Spanish.

#### In 2016,

- 2,143 families enrolled in EFNEP
- 22,267 youth contacts were made through the EFNEP youth program
- 79% of EFNEP participants had children under the age of 19.
- 52% of families were at or below 100% of federal poverty level.
- 83% of families enrolled in one of more food assistance programs at entry
- 99% of EFNEP adult participants were Hispanic/Latino.

#### Volunteer Strengthen EFNEP

In 2016, 200 adult volunteers donated 1,456 hours of work to EFNEP in Hidalgo County. At the Texas rate of \$25.11/hour, this volunteerism has a minimum dollar value of \$36,560. Volunteers make a difference in their own communities, and contribute to EFNEP's continued success.

#### EFNEP Makes a Real Difference

##### Adult Program:

Using "hand-on" experiences, EFNEP adult participants complete at least a six-lesson series on stretching food dollars, improving eating habits, and practicing food safety principles. As a result of participation in EFNEP, the following food and nutrition behaviors were achieved:

- 97% showed a positive change in any food group at completion. Specifically, EFNEP participants consumed 0.5 more cups of fruits and vegetables at completion, compared to entry.

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- 85% improved in one or more food resource management practices such as using a list for grocery shopping.
- 93% improved in one or more nutrition practices such as using the “Nutrition Facts” on food labels to make food choices.
- 62% improved in one or more food safety practices such as thawing foods safely.
- 34% of program participants reported a positive change in physical activity.

### Youth Program:

The EFNEP-Youth program is directed toward low- income school –age youth. These students participate in a series of fun and educational lessons on good nutrition and food safety as part of summer programs, classroom and after-school activities. The following results show how youth participants’ food behaviors improved after attending EFNEP classes.


- 79% improved ability to choose foods according to the Dietary Guidelines.
- 38% improved their safe food handling practices more often.
- 29% improved physical activity practices.

### Cost-Benefits of EFNEP

Studies have shown that for every \$1 spent of EFNEP, \$10 were estimated to be saved in health care costs and \$2 saved in food by participants. For Hidalgo County, this is \$2.9 million in estimated health care costs savings and almost \$595,610 in food costs.

VALUE

Expanded Food and Nutrition Education Program



These nutrition programs teach low-income audiences to prepare nutritious meals, stretch their food resources, improve their food-safety practices, and participate in regular physical activity. This not only improves the quality of life and reduces the risk of chronic disease for participants, but lowers public health-care costs.

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### Multi County (Hidalgo & Cameron) Child Care Conference Program

*Developed by Joanne Ureste, County Extension Agent-Family Resources and Lilian Mezquida, County Extension Agent-Family & Consumer Sciences, Cameron County*

#### Relevance

Over 60 percent of children from birth through age 6 (not yet in kindergarten) receive some form of child care on a regular basis from persons other than their parents. The Texas Workforce Commission estimates that there are over 100,000 child care providers caring for more than 760,000 children under the age of 13 in licensed or regulated child care facilities in the state of Texas. Additionally, child care is the 16th largest industry in the state, generating over 145,000 jobs and \$2.3 billion in wages for Texans.

Findings from longitudinal research have clearly established the fact that quality does matter when it comes to childcare. Children who receive high-quality care (e.g., warm sensitive caregiving, well-educated child care staff, low child-to-adult ratios, small group size) develop better language, math, and social skills; exhibit fewer behavior problems; and tend to be better prepared for entrance into school. Having a well-trained child care workforce is essential to providing the high quality child care that children need to develop physically, socially, emotionally, and cognitively.

#### Response

On April 30, 2016, the Texas A&M AgriLife Extension Service conducted a multi-county child care provider training conference in Weslaco for 101 child care providers and directors in the Cameron County and Hidalgo County, who provide care for 539 children enrolled in 13 child care centers or family day homes. One hundred and one participants completed a written evaluation of the conference (see Table 1 for participant characteristics). A total of 606 clock hours of training were provided to child care professionals seeking to meet state mandated training requirements established by the state of Texas.

#### Results

One hundred and one evaluations were received at the child care conference. The majority of the child care providers were employed by a child care center (other than Head Start). There were ninety eight females and three males in attendances. The average audience was teachers whom worked for a licensed and/or registered early childhood program. The average number of years they worked in the child care profession was 7 years.

The average age of the group was 38. The majority of the group indicated they were Hispanic. 100 percent of the audiences stated they learned new information and would utilize the information to strengthen their program.

The majority of the child care provides felt the information received was accurate, easy to understand, helpful, and relevant. Overall the child care providers found the training to be very beneficial.

## Family and Consumer Sciences

### Child Passenger Safety Program

*Developed by Joanne Ureste, County Extension Agent-Family Resources*

#### Relevance

Traffic crashes are the leading cause of death for children age 3 and up. For children ages 14 and under, the annual cost of motor vehicle occupant-related death and injury exceeds \$17.8 billion. Although safety belt and child restraint are the single-most effective tool in reducing these deaths and injuries, nationally more than half of children killed in vehicle crashes are unrestrained. Misuse and non-use of child restraints remains high.

The proper use of child safety seats reduces the risk of injury and death, leading to reduce medical costs, avoidance of lost future earnings, and improved quality of life. These economic benefits are an estimate \$2,159 per child age 0 to 4 and \$2,606 per child age 4 to 7 for new seat distributed, and \$622 per child for seat misuse corrected with an assumed 75% continued used. Based on this formula, the total economic impacts for the 31 inspections from January 2015 through November 2016 is \$46,170.

The Family Resource Program Area Committee (FR-PAC) identified locations to conduct checkup events and educational activity to promote best practice use of child safety seats and seat belts.

#### Response

Texas A&M AgriLife Extension Service-Hidalgo County created a partnership with Safe Riders and the Rio Grande Valley Child Passenger Safety Coalition. Safe Riders funded 36 car seats to provide to the Child Passenger Safety Seat educational events that AgriLife Extension Service-Hidalgo County would host. The Rio Grande Valley Child Passenger Safety Coalition provided 12 Certified Child Passenger Technicians. Texas A&M AgriLife Extension Service-Hidalgo County organized two Child Passenger Safety Events at Texas A&M AgriLife Extension Service-Hidalgo County and The Housing Authority of the County of Hidalgo in Weslaco, Texas. Educational programs were offer along with car seats.

The Child Passenger Safety event was advertised through news releases, media, and through information sent to area child care centers.

#### Results

Texas A&M AgriLife Extension Service-Hidalgo County served 60 inspections. The Family Resource Agent and the CPS Coalition taught families how to transport children correctly. There were 36 car seats in total given at the Child Passenger Safety Seat events. During the car seat passenger event, 3 children were unrestrained. Families received a new car seat because of 2 car seats were recalled, 9 were missing labels, and 16 were old/unsafe.

## Family and Consumer Sciences

### Money Smart Program

*Developed by Joanne Ureste, County Extension Agent-Family Resources*

#### Relevance

Recent studies indicate that people of all ages, incomes, and education levels lack basic financial knowledge and skills to ensure long-term financial stability for themselves and their families. Financial Industry Regulatory Authority conducted a study and indicated that 19% of Texans participating in the study reported spending more than their income; 30% reported having past due medical bills, 57% lack an emergency fund that would cover up to 3 months of expenses, and 39% reported using a non-bank lending product (e.g. payday loans) in the past 5 years. The Corporation for Enterprise Development reported almost 51% of Texans do not have a saving account, 20% of Texans have zero net worth, Texans have the lowest credit scores in the nation, and Texas ranks 44th in the rate of homeownership.

Many families face the constant challenge of managing limited resources to meet everyday expenses. The increasing complexity of the financial system and the lack of formal financial literacy education further burden families who are trying to make ends meet, particularly low-income families. The recent recession and slow recovery have heightened consumer awareness of the need for financial literacy education. Growing unemployment, foreclosures, and credit delinquencies have contributed to increased interest among consumers in budgeting, saving, and cutting back on spending.

The Family Resource Program Area Committee (FR-PAC) identified financial literacy topics that were needed in Hidalgo County such as creating a budget, opening a checking and savings account, investing, reading a credit report, using a credit card, and understanding various types of loans.

#### Response

Money Smart is a financial management program developed by the Federal Deposit Insurance Corporation (FDIC). While targeted at adults outside the financial mainstream, this curriculum can be used with adults who have low financial knowledge and skills. The curriculum helps individuals build financial knowledge, develop financial confidence, and use banking service effectively.

Money Smart has been utilized by Texas A&M AgriLife Extension Service to increase the financial literacy of a variety of Texans, recent immigrants, Head Start parents, Housing Authority residents, and participating of drug rehab programs.

Money Smart class topics include the following:

- Introduction to Bank Service
- Credit
- How to Choose and Keep a Checking Account
- How to Keep Track of Your Money
- Savings

The Family Resource Program Area Committee (FR-PAC) met quarterly throughout the year to identify issues and the target audience, decide which modules to implement, and assist with the

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implementation of Money Smart. The Family Resource-PAC introduced Money Smart modules into social media to accommodate a vast audience. In addition, Money Smart modules were inputted in the Family Resources Parenting Quarterly Newsletters and were distributed by our Program Area Committee.

Implementation of Program:

Money Smart was implemented in the following locations:

- San Juan Parent Involvement Center, San Juan
- Robert E. Lee Elementary, Edinburg
- De La Vina Elementary, Edinburg
- Rowe High School, McAllen
- Thigpen-Zavala Elementary, McAllen
- Sharyland Parent Involvement Center, Mission
- Fossum Middle School, McAllen
- IDEA-Donna
- Hidalgo County Housing Authority, Weslaco
- Mid Valley Halfway Housing, Edinburg
- Head Start Professional Development Training, San Juan
- Valley View Apartments, Pharr
- San Carlos Community Center, Edinburg

## Results

Evaluation documents were received from 91 participants. 45 participants completed both pre and post workshop surveys as well as end of session evaluations for sessions they attended. The pre and post surveys ask participants about their money management behaviors and attitudes about money. The pre-survey is administered at the first class and the post-survey is administered after the last class. This group of participants made impressive changes given the 4-6 week period in which they participated in classes.

One important money management best practice is the use of a budget or spending plan. At the beginning of the class, 29 participants indicated they currently used this tool. At the end of the class, 10 additional participants indicated they now used a budget or spending plan for an increase of 22%! This is a significant result that if continued, can help these participants improve their financial situations over the long-term.

The majority of participants reported 'Always' paying their bills on time (28 at the beginning and 30 by the end). There was movement within the group, however. Several participants made improvements including 3 participants who reported at the beginning of classes that they 'Usually' paid their bills on time and at the end of the classes they reported 'Always.' Two participants reported 'Sometimes' paying on time and now report 'Usually.' Another participant who reported 'Sometimes,' now reports 'Always.' Improvements were also made in the frequency with which participants reported saving money. At the beginning of classes, 11 participants reported saving 'regularly,' 28 'as often as I can,' and 6 'never.' By the end of classes, 16 reported 'regularly,' 26 'as often as I can,' and 2 'never.' There was movement among the categories including 6 participants who moved from 'as often as I can' to 'regularly,' 4 who moved from 'never' to 'as often as I can,' and one who moved from 'never' to 'regularly.'

## Family and Consumer Sciences

Less than half of participants had seen a copy of their credit report (17 of the 45). This number did not increase by the end of the classes. Participants in future classes could be encouraged to complete this exercise as part of the class given the importance of checking the accuracy of information in a credit report.

The pre and post surveys ask participants 4 questions to gage their attitudes about and confidence in using money. Participants indicated improvements in all 4 questions. At the beginning of the class, 31 participants agreed with the statement 'I am in control of my money.' By the end of class, 39 participants agreed, six participants who weren't sure at the beginning agreed by the end of the classes. By the end of classes, thirty-nine participants agreed that they understood their use of money enough to make a budget – an increase from 29 at the beginning of the class. This is consistent with the 39 participants who said they now had a budget.

The average age of the group was 41. The majority of the group indicated their monthly household income was less than \$1500. More than half of the group had at least graduated from high school or college – 15 high school graduates, 11 college graduates and an additional 3 with some college. The remainder of the group had less than a high school education.

All participants in the classes increased their knowledge of the concepts taught as shown in the following table (numbers in parentheses are the maximum possible score).

Module Title	Mean Before	Mean After
Keep it Safe	10.97 (24) n=34	21.42 (24)
Loan to Own	13.93 (24) n=29	22.51 (24)
Charge It Right	15.25 (28) n=32	25.33 (28)
Money Matters	11.6 (20) n=38	19.17 (20)
Pay Yourself First	16.09 (24) n=33	22.87 (24)
To Your Credit	16.32 (32) n=38	28.97 (32)
Your Own Home	13.07 (28) n=30	24.69 (28)

## Family and Consumer Sciences

### Strengthening Families Program

*Developed by Joanne Ureste, County Extension Agent-Family Resources*

#### Relevance

Positive parenting practices play an essential role in children development and later life success. Parents are responsible for several key caregiving tasks to help ensure that proper physical, cognitive, social, and emotional development occurs for their children. Parent is affected by many aspects of life including parent characteristics (e.g. personality, cognitive abilities, health, age, and level of education); child characteristics (e.g. temperament, developmental progress, mental health); family economic resources, and family structure (e.g. single, two-parent, grandparents raising grandchildren). Educating families about positive parenting practices and healthy family functioning is essential to improving overall child/family health and well-being. Research indicates that parents who are warm and affectionate, monitor children activities and provide consistent discipline practices that offer children guidance without harsh punishment are related to positive outcomes for children including academic competence, high self-esteem, positive peer relations, and fewer child behavior problems. Positive parenting practices in time of stress, such as financial hardship, divorce, or family illness-can often act as a buffer against such stressors and help build children coping and adjustment skills. In contrast, ineffective or dysfunctional parenting practices can lead to poor outcome for children, including behavioral problems and diagnosed mental health conditions.

The Family Resource Program Area Committee (FR-PAC) identified potential partnership to collaborate with such as the Department of Hidalgo County Adult Probation and Child Protective Services.

#### Response

The Strengthening Family program is a six week program designed for parents of school-aged children to strengthen the relationship between parents and their children and to equip parents with the skills they need to effectively raise their children. The program was offered in the morning and evening at the Texas A&M AgriLife Extension-Hidalgo County office.

The Family Resource Program Area Committee (FR-PAC) met quarterly throughout the year to identify issues and the target audience and assist with the implementation of Strengthening Families. Texas A&M AgriLife Extension was able to create a partnership with the Department of Hidalgo County-Adult Probation. The Department of Hidalgo County-Adult Probation clients were given the opportunity to enroll in the Strengthening Family Program. In addition the FR-PAC was able to attend the 332nd District Court, Judge Mario Ramirez courtroom, to discuss the program for referral services.

In addition, Strengthening Families modules were inputted in the Family Resources Parenting Quarterly Newsletters and were distributed by our Program Area Committee.

#### Results

There were eleven participants in the program, two females and nine males. The majority of the participants had less than a high school education. More than fifty percent were separated and had an annual household income from \$0.00 to \$9,999. The average age of the group was 31. All participants stated, after taking the class they have helped them be better parents. Fifty percent saw

## **Family and Consumer Sciences**

good progress in their children's behavior. Some of the changes the participants made after attending the program are as follows:

- Control Temper
- Listening to others
- Organize family meetings
- Communicate better

Over the entire program has been impactful and beneficial to the participants.

## Family and Consumer Sciences

### Master Wellness Volunteer Program

***Developed by Esly Reyes, Extension Agent Assistant-Family & Consumer Science, with support from Amy Valdez, Healthy South Texas Specialist, Andrea Valdez, County Extension Agent- Family and Consumer Sciences, Yolanda Rios, Better Living for Texans Program Assistant, and Andrew B. Crocker, Family and Community Health Extension Program Specialist***

#### Relevance

Recent studies indicate that Hidalgo County ranks at the top for obesity (42.9%)<sup>1</sup>, physical inactivity (22.10%)<sup>1</sup>, diabetes (13.3%)<sup>2</sup>, and other health problems in the state of Texas. Texas A&M AgriLife Extension offers numerous health and nutrition programs that help individuals to improve their health and quality of life. However, because there is an enormous need for health education in this county, there is also a big need for trained individuals to be advocates for our organization and help extend the education further in the community. The Master Wellness Volunteer Program provides 40 hours of health and nutrition education to volunteers. In return, they give back 40 hours of volunteer service to the community. Their service substantially increases the scope and impact of the Family and Consumer Sciences programs.

#### Response

The Master Wellness Volunteer training was delivered for the first time in Hidalgo County in November 2016. The classes were offered via two different methods: face-to-face and hybrid/online options to better accommodate volunteer's availability. The target individuals to participate in this training were college students, health professional retirees, and other individuals who desired to make a difference in the health of the Hidalgo County community. The strategies used to recruit were news releases, social media advertisements, and outreach events in colleges, universities, hospitals, clinics, and other community events. These volunteers received 40 hours of training, and have agreed to give back 40 hours of service to receive their certification. In addition, five hours of continuing education and ten hours of service are needed annually to maintain their certification. The Master Wellness Volunteer curriculum included the following educational constructs:

- Health and Nutrition
- Food Safety
- Dietary Guidelines
- Physical Activity
- Stress Management
- Public Speaking

## Family and Consumer Sciences

### Results

A total of twelve volunteers successfully completed the 40 hours of training and passed their certification exam. Seven of them completed the training through the face-to-face option and five of them through the hybrid/ online option. Throughout the training, volunteers were able to observe experienced agents and specialists deliver their programs, and had the opportunity to ask them questions to fortify their teaching skills learned. These volunteers have demonstrated competence in the different topics taught and are now ready to begin volunteering with Texas A&M AgriLife Extension Service as a Master Volunteer Intern.

### Future Plans

In 2017, 14 Master Wellness Volunteers will expand health and nutrition education to our Hidalgo County community through their involvement in different Family and Consumer Sciences programs such as Dinner Tonight Healthy Cooking School, Walking Across Texas, Sí, Yo Puedo Controlar Mi Diabetes!-Diabetes program, Worksite Wellness, Better Living for Texans and more. For 2017, another Master Wellness Volunteer training will be delivered with the purpose of increasing the number of volunteers in the program and impacting the health of our community positively.

### References:

1. Diabetes complications. (2016). Retrieved from (<http://www.diabetes.org/living-with-diabetes/complications/.com>).
2. Obesity. (2016). Retrieved from (<http://www.mayoclinic.org/diseases-conditions/obesity/basics/causes/con-20014834>).



## Family and Consumer Sciences

### ¡Sí, Yo Puedo Controlar Mí Diabetes!

*Developed by Esly Reyes, Extension Agent Assistant,  
with support from Amy Valdez, Healthy South Texas Specialist; Andrea Valdez, County  
Extension Agent-Family and Consumer Sciences Agent; Claudia Quiroga, Family and  
Consumer Sciences Program Assistant*

#### Relevance

¡Sí, Yo Puedo Controlar Mí Diabetes! (Sí, Yo Puedo) is an evidence-informed, culturally competent educational program targeting low-literate Hispanic/Latinos with diabetes. The curriculum is predicated on the American Diabetes Association's national standards of care and employs the Social Cognitive and Self-regulation theories as its foundational support. Empowerment is an overarching theme of the program, and, to this end, Sí, Yo Puedo aims to equip participants with knowledge and lifestyle skills to better control their diabetes.

- Diabetes is a serious public health issue in Hidalgo County, with a prevalence rate of 13.3%. This an alarming percentage compared to Texas at 13% and the United States at 9.3%.
- Diabetes increases the risk of developing further complications such as kidney disease, neuropathy, stroke, high blood pressure, and skin, eye and foot complications
- Diabetes cost Texas more than 12 billion dollars.
- Among persons with diabetes, a higher proportion of Texas Hispanic/Latinos (32.5 percent) could not see a doctor in the last 12 months due to cost compared to Whites (16.5 percent.)

#### Response

In 2016, 26 individuals enrolled in Sí, Yo Puedo classes delivered in Hidalgo County (Edinburg, Texas and Pharr, Texas). 21 participants successfully completed pre- and post-test surveys.

- Proper management is critical to minimize the potential negative effects of diabetes.
- Self-management education is the cornerstone for diabetic care and vital for blood glucose control.
- Recognizing the need for a culturally-relevant type 2 diabetes self-management education targeting Texas Hispanic/Latinos, Sí, Yo Puedo was developed to address this gap in health programming.

¡Sí, Yo Puedo Controlar Mí Diabetes! topics include the following:

- What is diabetes?
- Checking your blood glucose levels
- Eat healthy with diabetes
- Be active with diabetes
- Medicines and diabetes



## Family and Consumer Sciences

- Preventing diabetes problems

### Results

The findings below summarize the impact of the Sí, Yo Puedo program. Demographic characteristics are based on all registered participants, and outcome indicators are based on pre- and post-test findings. Outcome indicators include diabetes knowledge, self-care behaviors, self-efficacy, health status and HbA1c values.

- Demographic characteristics: 77% (N=20) of the participants were female. The average age was 63 years, and 88% (N=23) of the participants were Hispanic/Latino. Approximately 58% (N=15) of participants reported having less than a high school diploma. Seventy-three percent (N=19) of the participants reported having a yearly income under \$20,000. Seventy-seven percent (N=20) of participants reported having medical insurance. Seventy-three percent (N=19) of participants reported never having received any diabetes classes.
- There was a change in diabetes knowledge, pre-test 6.7 M (out of 10) and post-test 8.2M (out of 10.)
- Self-efficacy scores improved with participants reporting increases in their confidence to engage in diabetes self-care behaviors: pre-test 3.1 M (out of 4); post-test 3.7 M (out of 4.) (Scale: 1 = I don't feel sure; 4 = I feel very sure.)
- Out of a total score of 44, diabetes self-care scores reveal that participants improved in performing routine health behaviors to better manage their diabetes: pre-test mean score 24.3 and post-test 33.9.
- Health status scores improved in their perceived health status: pre-test 3.4 M (out of 5) and post-test 2.2 M (out of 5.) (Scale: 1 = Excellent to 5 = Poor.) A lower mean score indicates improvement in health status scores.
- Average HbA1c scores improved from baseline 9.9M to 3-months post-intervention 7.7 M of the sixteen paired participant scores. A 0.5% reduction in A1c scores significantly decreases diabetes complications.

### Acknowledgements

Special thanks to the following individuals for helping to make this program possible: Marylou Garza- Superior Health Plan Outreach Specialist and Judge Homer Jasso- Justice of the peace. In addition, thanks to Pharr Housing Authority and San Carlos Community Center for providing locations for this program.

### Future Plans

There is an enormous need to educate individuals in Hidalgo County about diabetes. Therefore, in conjunction with the Diabetes Task Force, we have decided to implement three more Si, Yo Puedo programs throughout the year of 2017. The goal is to increase the number of participants and make a difference in their health.

## 4-H and Youth Development

### 4-H Grows Expansion Program

*Developed by Kimberly Guillen, County Extension Agent – 4-H & Youth Development*



#### Relevance

The 4-H Management and 4-H Membership Expansion plan includes oversight of the 4-H and youth development program which includes 4-H clubs/groups, Club Managers, volunteer leaders, and the Advisory Committee. In addition, it includes the implementation of marketing and promotion efforts aimed at recruitment of new 4-H volunteers and members as well as other efforts to expand 4-H programming including community, project, and SPIN club development. This plan also includes management and oversight of projects, activities, and events that enhance the 4-H members experience and contribute to their development in the areas of life skills, responsibility, leadership and citizenship.

The goal is to provide 4-H members, club managers and volunteer leaders with trainings and educational programming that empowers them to lead in all aspects of the program. This includes: successful community club involvement and growth, implementation and supervision of meaningful projects and activities, and to provide and support appropriate recognition for 4-H youth. Enrollment and growth goals for the 2016 County 4-H program were outlined as follows:

- Organized 4-H community clubs: 25
- Organized 4-H club enrollment: 600 members
- Enrolled & Screened 4-H volunteers: 90
- A minimum of one Special Interest club

#### Response

The County Extension Agent worked with the 4-H Council, Adult Leaders, Advisory Committee, Volunteers and other partners. A variety of promotional and educational methods were used to manage and implement a successful County 4-H program. These methods included (but are not limited to): face to face individual and group meetings such as workshops, trainings, contests and recognition events; written communication such as newsletters; media such as radio and electronic communication such as email, newsletters, and social media.

With the cooperation and collaboration of the County Council, Ambassadors, Club Managers, 4-H members, and Project Leaders, a Hidalgo County 4-H promotional video was produced which has received over 12,000 views and reached 30,877 people on social media.

#### Results

The results of the focus on growing 4-H in Hidalgo County, are as follows:

- Organized 4-H community clubs: 25
- Organized 4-H club enrollment: 645 members
- Enrolled & Screened 4-H volunteers: 107

## 4-H and Youth Development

- Two Certified Veterinary Assistant groups have been formed involving 32 youth
- New projects now available to Hidalgo County 4-H'ers include: Robotics and Rifle Shooting Sports

### Acknowledgements

Several people are responsible for helping grow the 4-H program in Hidalgo County. Thank you to all of the Club Managers and Adult Project Leaders and Volunteers, 4-H parents, all of the Hidalgo County Agents and support staff, Luis Saldana – District 12 4-H Specialist, and all community members who continue to support the program.

## VALUE

### Character and Leadership Development



Texas A&M AgriLife Extension's 4-H Youth Development Program teaches participants leadership skills and character traits. Participating youth become mentors, role models, and leaders in their schools and communities.

## 4-H and Youth Development

### 4-H Food Challenge Program

*Developed by Kimberly Guillen, County Extension Agent – 4-H & Youth Development*



#### Relevance

With Texas being the 19th most obese state in the nation and the percentage of the food budget spent on away-from-home food increasing steadily, healthy lifestyles programming is critical. The 4-H Food Challenge is a grass-roots effort developed by County Extension Agents to address the need for a highly-charged foods experience that teaches youth about making healthy food choices and how to prepare healthy foods. In the Food Challenge, youth work together to create a dish using a predetermined set of ingredients. From these ingredients, 4-H members must identify, prepare and then present information related to the preparation process, nutritional value, serving size and cost of the dish. Throughout this process, 4-H members are applying the knowledge and skills gained through participation in the 4-H foods and nutrition project, demonstrating their culinary and food safety skills, and continuing to learn about making healthier food choices.

The goal of implementing the 4-H Food Challenge is to give youth and volunteers an opportunity for increasing knowledge related to foods and nutrition and being able to apply the knowledge and skills gained through project experiences. Specific goals include: provide opportunities for participants to exhibit their knowledge and skills when preparing and presenting a dish, equip youth with knowledge and resources to make healthy food choices, provide opportunities for participants to learn from other team members, promote teamwork, give participants opportunities for public speaking, and provide leadership opportunities for youth.

In Hidalgo County, 25 4-H youth will participate in the 2016 Food Challenge.

#### Response

The agent providing leadership will work with a task force to determine the educational plan related to the 4-H Food Challenge, which includes volunteer training and youth learning experiences.

Volunteers will gain knowledge and skills in foods and nutrition, the food challenge, and how to work with youth, which will be put to use when training and providing educational experiences for youth. The youth will participate in activities that will help them gain the knowledge and skills needed to have a quality, educational experience in the 4-H Food Challenge.

Learning activities will focus on building a healthy plate, basic cooking skills and food preparation methods, food safety, nutritional value of foods and function of nutrients, cost analysis, and how to alter recipes to enhance nutritional value. These learning experiences may be in the form of hands-on learning experimentation, demonstrations, tours, observations, and study materials.

The task force (which included Agents, 4-H club managers, project leaders, and parents) decided that the most crucial need for youth was to learn basic cooking skills. Two workshops were designed to teach the basics of cooking including: cooking with a skillet, boiling food, knife skills, and food safety.

## 4-H and Youth Development

Another workshop was designed to teach My Plate and interviewing skills. Mock interviews were conducted as members were prepared for Food Challenge interviews. Youth were able to practice speaking in front of others.

## Results

- 40 4-H youth participated in the 2016 Hidalgo County 4-H Food Challenge
- 22 4-H youth participated in learning workshops
- 15 youth participated in District competition
- Youth gained knowledge in cooking, nutrition, and food safety
- 5 new/additional adult volunteers were utilized and learned about the 4-H Food and Nutrition project as well as Food Challenge

## Acknowledgements

All project leaders, club managers, and 4-H parents involved in the food and nutrition program were instrumental in the success of the implementation of this plan. Hidalgo County AgriLife faculty including Esly Reyes and Yolanda Rios helped with the planning and educational portions as well.



## Healthy South Texas



## HEALTHY SOUTH TEXAS IN HIDALGO COUNTY

Using the proven agriculture-based Extension model, Healthy South Texas is creating a new crop of health educators to engage Texans where they live and work to take control of their own health and wellness. Our comprehensive, multi-disciplinary team engages families, enhances education, promotes behavior change, and improves quality of medical care and health outcomes.

## HEALTHY SOUTH TEXAS COALITION MEMBERS

Our county recruited, trained, and mobilized a community Healthy South Texas coalition, identifying the most critical health needs in our community and helping assess the best way to address those needs.

### 14 COALITION MEMBERS REPRESENTING:

City/County/State Government (2)

Education (2)

Community Organization (7)

Medical Professional (3)



**HEALTHY SOUTH TEXAS**

## Healthy South Texas



OVER THE COURSE OF THE 8 WEEK PROGRAM, 428 PARTICIPANTS WALKED A TOTAL OF 57,495 MILES.



348 adult participants walked 57,440 miles and 80 student participants walked 55 miles.



In HST Year 1, including the cost of lost wages, the total potential economic impact for Hidalgo County WAT! Participants is approximately \$2,516,482.



In Year 1, the average weekly mileage of WAT! Participants in Hidalgo County improved 3 miles from week 1 to week 8.



It is estimated that 44 of the adults who complete the WAT! Program could avoid or delay the onset of diabetes through increased physical activity.



**Ribbon cutting during Walk Across Texas kick-off.**

## Healthy South Texas



### EMPOWERING YOUTH

Healthy South Texas Youth Ambassadors are local, high-school age youth recruited by agents and trained to serve as a community health and wellness advocate. These ambassadors also assist county Extension agents in providing leadership to the youth components of Healthy South Texas.

- Ten Hidalgo County youth have been selected through the application process and trained. All ambassadors are Servsafe food handler trained and certified in order to provide support and conduct food demonstrations at Dinner Tonight and various health fairs throughout the county



**Youth Ambassadors are recognized during Hidalgo County Commissioners Court meeting.**

## Healthy South Texas



### DINNER TONIGHT/NUTRITION EDUCATION

Healthy eating begins at home and with Texas A&M AgriLife Extension Services Dinner Tonight! program, we make it easier for people to plan and cook healthy meals. Recognizing the challenges of busy families, this program uses face-to-face cooking schools and an all-access web-site to teach cooking tips and techniques, provide reliable nutrition information, address food safety concerns, and give guidance on food preparation.

Hidalgo County hosted a Dinner Tonight Healthy Cooking School with 280 participants on July 28, 2016. Cooking school participants indicated high levels of satisfaction with the event:

- 93% completely or mostly satisfied with program.
- 92% extremely likely or likely to make the dishes demonstrated.
- 84% first AgriLife program attended.



**Dinner Tonight features healthy recipes during a healthy cooking school.**



### OTHER LOCAL PROGRAMS

- Provide leadership and educational programming for Si Yo Puedo diabetes education with 26 participants. 73% reported never having received diabetes education prior to class and average A1c scores improved over 3 months.
- Over 150 students participated in the Learn, Grow, Eat & GO! curriculum in schools.
- 80 participants are actively learning about nutrition and gardening through 8 community gardens.
- 23 Master Gardener workshops have reached over 1,250.

# Extension Education in Hidalgo County

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## Personnel

### Extension Agents:

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County Extension Agent-Family & Consumer Sciences,  
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County Extension Agent-Agriculture & Natural Resources

Cooperative Extension Agent-Farm Advisor

County Extension Agent-Family Resources

Extension Agent-Expanded Food & Nutrition Education Program

County Extension Agent-Horticulture

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