

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Food Safety

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	8.8	0.0	0.0	0.0
Actual Paid Professional	6.7	0.0	0.0	0.0
Actual Volunteer	1.9	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
255703	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
127851	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Updated all curriculums: Consumers and Food Managers in order to update and include recommendations for adult learning techniques.
- Worked in collaboration with the communication media.
- Continued working in partnership with other agencies to develop educational programs.
- Offered "Families Be Food Safe".
- Exhibitions, information centers, radio shows, among others.
- Offered Food Safety Course to Food Establishment managers.
PRAES and personnel of other agencies
- Trainings: Emphasized on institutions that serve At-Risk Population in the Food Code regulations, Hazard Analysis and Critical Control Points, Food Defense, and others.

2. Brief description of the target audience

- Extension professionals and other professionals
- Parents and persons that plans/buys/prepares food for the family
- Consumers with an emphasis on At risk Population
- Persons in Charge of Retail Food Establishments
- Persons in charge of Elderly Homes

3. How was eXtension used?

eXtension was not used in this program. PRAES updated curriculums and prepared material so that Food Science Professionals could offer Food safety training

V(E). Planned Program (Outputs)

1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	12908	4471	876	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2012
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of consumers completing one Food Safety educational curriculum for consumers.

Year	Actual
2012	863

Output #2

Output Measure

- Number persons in charge of food establishments completing Food Safety Course.

Year	Actual
2012	3605

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of consumers that adopted one or more food handling practices.
2	Number of participants that approved the certification exam.
3	Number of participants that adopted three or more of eight selected food handling practices recommended by the Food Code.

Outcome #1

1. Outcome Measures

Number of consumers that adopted one or more food handling practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	715

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

During 2009-2012, CDC reported 1527 outbreaks caused by foodborne illnesses. Twenty one percent (21%) of these outbreaks were caused by food consumed in private homes. After a food is contaminated, further mishandling, such as undercooking or leaving food exposed to dangerous temperatures can promote microbial growth. For consumers to adopt proper food handling practices we depend on education through mass media and short courses like the ones offered by PRAES.

What has been done

We adapted the "Families Be Food Safe" campaign to our cultural needs. Lessons were prepared in which participants learned and talked about topics such as: Foodborne illness, proper handwashing procedure, how to shop for safe food, how to prepare and serve safe food, and what should I do with leftovers. We also updated "Protect your baby" curriculum, which includes 5 lessons: Food safety for mommies to be, Why is my baby/toddler susceptible?, Safe handling of breast milk, safe handling of baby formulas, and safe handling of baby food.

Results

Eight hundred and sixty-three(863) participants completed Food safety course which consisted of at least 4 lessons; 83% of the participants adopted at least one safe food handling practice. The practices adopted were: 65% cleaned and sanitized food surfaces, 76% washed their hands frequently, 61% separated food to avoid cross contamination, and 29 used a food thermometer to check cooking temperatures.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and

Naturally Occurring Toxins

Outcome #2

1. Outcome Measures

Number of participants that approved the certification exam.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	3272

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Restaurants in which there is a Food Manager (FM) certified in Food safety are less likely to Critical violations for personnel, food source or handling, in facility or equipment requirements, ware-washing and other operations (Cates,SC, et. al, 2009). Sung-Hee, P., Tong-Kyung,K, and Hye-Ja, C., (2010) found that establishments with trained employees showed improvement on the inspection score.

What has been done

The Food Safety course was offered to 3,605 FM throughout the island by two home economists working 100% FTE's in EFNEP and 10 home economists working 20% FTE's each). The course was offered in both English and Spanish to attend the needs of our clientele.

Results

Of the 3605 participants that completed the Food Safety Course, 3272 (91%) approved the test.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #3

1. Outcome Measures

Number of participants that adopted three or more of eight selected food handling practices recommended by the Food Code.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	3015

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to the PR Department of Health there are 39,919 Food Establishments registered. The Health Inspectors verify that food managers are measuring and recording temperatures of potentially hazardous foods using a calibrated food thermometer. They also evaluate any food handling practices that may put the food's safety and the public's health at risk.

What has been done

Our home economists offered a 13-lesson food safety course covering all the knowledge areas and FM responsibilities as required by the Food Code of 2009.

Results

Eighty-four per cent (84%) of the participants adopted three or more food handling practices, as follow: 65% prepared a plan for the control of PHF temperatures, 79% washed their hands every time they changed tasks, 69% used separate cutting boards, 57% used a food thermometer to measure PHF temperature, 66% used disposable gloves when handling ready to eat food, 78% cleaned and sanitized utensils and equipment properly, 66% thawed food properly, 61% kept h time and hot food at 135°F or above during holding.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Government Regulations
- Competing Public priorities

Brief Explanation

The past year (2012) was election year. As part of the regulations during this period, government employees could not receive any type of training that could convey a job promotion. Being the Food safety course directed to FM, it could have been taken by political candidates, there, many government agencies with Food service decided to postpone the trainings till after the elections.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The purpose of the evaluation was to measure knowledge gained by persons in charge of food establishments after completing the Food Safety Course. This result is presented in Outcome #2 which shows that 91% approved the food safety certification exam.

Key Items of Evaluation

Participants gained knowledge after participating in the Food Safety Course, where 91% approved the certification exam.