

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
703	Nutrition Education and Behavior	25%		25%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	25%		25%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	25%		25%	
724	Healthy Lifestyle	25%		25%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	1.0	0.0
Actual Paid	2.9	0.0	0.5	0.0
Actual Volunteer	0.0	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
72545	0	24724	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
6303	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

PCC: Four food safety trainings were conducted by food handlers.

CMI: Food safety training and presentations continued to take place during community visitations and outreaches.

COM-FSM: Education and training about proper food preparation, hygienic food handling, causes and prevention of food- and water-borne illnesses were conducted to communities, schools and food establishments. Clients were identified based on interest and by referrals from Health Services and Special Education. Workshops/trainings conducted for the communities included outer islands and elementary schools to increase knowledge and skills in Food Safety and an awareness of the consequences of unsanitary practices. Information provided included recipes and other printed information materials. Follow-up visits to observe and ask questions to determine impact of program were conducted. Cross training of agents was carried out in every state of the FSM during the year.

2. Brief description of the target audience

PCC: Target audience include food handlers, food entrepreneurs, school cooks, teachers, students, and parents .

CMI: Continued targeting students, parents, chefs and churches.

COM-FSM: Target audience included homemakers, cooks of food establishments, school teachers and students, government and non-government groups and other individuals. Also included were mothers with young children, families with special need children, senior citizens, and special interest group such as "Women-in-Farming", and the outer Island peoples.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	2245	4791	1331	2360

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

Patent Applications Submitted

Year: 2014
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2014	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of community workshops on food safety conducted.

Year	Actual
2014	64

Output #2

Output Measure

- Number of program participants with increased knowledge and practices after completing educational programs.

Year	Actual
2014	2434

Output #3

Output Measure

- Number of extension publications on food safety.

Year	Actual
2014	4

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of program participants who increase awareness of food safety issues.
2	Number of program participants adopting recommended practices after completing educational programs.
3	Reduced incidences of food-borne and water-borne illnesses.

Outcome #1

1. Outcome Measures

Number of program participants who increase awareness of food safety issues.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	2719

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

PCC: Food handlers are not well informed on proper food handling behaviors to prevent food borne illnesses.

CMI: People are not fully aware of the consequences as a result of handling the food unsafely.

COM-FSM: There is limited awareness by homemakers and food handlers on food safety, proper food handling, storage, and food selection including damaged cans and packaged imported food items, and understanding of food labels.

What has been done

PCC: Four food safety trainings were conducted to 200 participants and 656 clients were taught to wash their hands or apply sanitizers before eating.

CMI: Instructions and trainings offered to students, communities and food handlers on proper food safety measures.

COM-FSM: Community workshops, individual visits to referred families, school enrichment programs, presentations and demonstrations of food sanitation and safe handling in respond to request from families, communities, and schools.

Results

PCC: Key food handling behaviors such as practicing personal hygiene, cooking foods adequately, avoiding cross-contamination, keeping food at safe temperature, and avoiding food from unsafe source were adequately understood by 200 participants of Food Safety Classes and another 656 clients learned proper hand-washing.

CMI: Participants gained the necessary knowledge. Students received high marks and are one step ahead of passing the experience to family and friends.

COM-FSM: Participants increased their knowledge on non-patronizing of expired goods, maintaining hygiene in their kitchen and sanitary handling during meal preparations. More than 867 individuals increased awareness on food safety issues. Elementary students learned the proper ways if washing hands and food handling while adults learned and practiced food safety at homes.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

Number of program participants adopting recommended practices after completing educational programs.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	817

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

PCC: Food handlers are not practicing proper food handling techniques to prevent food borne illnesses.

CMI: Food poisoning had occurred often with deadly consequences.

COM-FSM: Safe food handling is a community concern to avoid water- and food-borne illnesses and a high incidence of non-communicable diseases, partly the results of unsafe, unsanitary, inappropriate methodology in food preparation.

What has been done

PCC: Food handlers were taught proper food handling techniques in Food Safety Classes as well as to clients served with food products during tours to college research station and other civic events.

CMI: Government has warned side-road food handlers to get food safety certificates before selling food to the public. EPA agents conducted routine check around the capital city making sure food handlers are certified in selling food to the public.

COM-FSM: Follow-up visits to observe and encourage positive changes to improve food safety issues in households and schools. Home gardens demonstration plots were established at some households and schools.

Results

PCC: 200 participants of Food Safety Classes have adopted behaviors in proper food handling such as practicing good personal hygiene, cooking foods adequately, avoiding cross contamination, keeping food at safe temperature, and avoiding food from unsafe source.

CMI: There are now no known cases of food poisoning reported by the health officials to date. Even with that, outreach and awareness continued to carry out in different communities.

COM-FSM: Participants adopted food safety practices, including selection and purchase of foods, of personal hygiene, cleanliness of kitchens and utensils, sanitary meal preparation, and proper food storage. Surveys indicated 80% of program families have cleaner kitchen facilities. Home gardens were established at 34 households and at 2 schools. Local food vendors applied food safety guidelines. Observations conducted at the schools and communities showed that families and students increasingly applied food safety lessons.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

724 Healthy Lifestyle

Outcome #3

1. Outcome Measures

Reduced incidences of food-borne and water-borne illnesses.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	257

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

PCC: Food handlers and consumers do not practice proper food handling procedures resulting in outbreaks in food borne illnesses due to warm temperature and humidity.

CMI: Food handlers and water sources in people's residences should be at all times be evaluated to avoid contaminations.

COM-FSM: People do not always know or associate their activities such as food production, marketing and preparation with food safety and related issues such as high incidences of non-communicable diseases.

What has been done

PCC: 200 food handlers were taught how to avoid food borne illnesses through proper food safety practices and 656 clients were taught proper hand-washing techniques before eating.

CMI: Training and other activities on proper food safety and water sanitation were conducted.

COM-FSM: Awareness and adoption of safe handling and storage were promoted through training, education, meetings, one-to-one contacts and partnerships. School children learned to properly wash hands with soap and water.

Results

PCC: There was no incidence of food borne illnesses due to the conduct of food safety classes and practicing food safety techniques among food handlers in Palau.

CMI: The number of food borne illnesses and water contaminants were remedies and participants gained the basic knowledge of the safety measures.

COM-FSM: There appears to be reduced incidence of water- and food-borne diseases among communities which lessened public burden of medical treatment to affected individuals. One household made an extension for a kitchen that uses only gravity to run water into sink and for drainage. Another acquired a refrigerator to improve food storage. First and second graders sing songs while washing hands.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
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724	Healthy Lifestyle

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

PCC: Facilities for proper food storage and cleaning are not always available in many homes resulting in unsafe food handling environment.

CMI: Most people lack a decent and clean surrounding to prepare food as well as clean cooking supplies and materials. Ground water is contaminated as a result of unfriendly disposable methods of all kinds of wastes. Droughts and other weather conditions including animals waste greatly have negative impacts on the water catchments.

COM-FSM: There is low motivation, limited resources and lack of clear vision on the

importance of food safety. Delayed road improvement affected safe supply of drinking water and clean supplies of local produce due to mud and dust. Heavy rains and floods and high fuel costs restricted visits to island communities. Lack of refrigerators in majority of homes shortened storage and safety of foods. Imported foods are cheaper and more convenient than the local produces in markets. Non-Communicable Diseases are recognized as a greater health threat but are not associated with Food Safety and are considered a nutrition problem.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

PCC: Participants have understood and practiced proper food safety techniques as shown in their pre and post-tests.

CMI: Food handlers now have the opportunity to be checked and evaluated by health professionals before handling and preparing food for the public. In terms of water monitoring of water catchments, it is found to be contaminated..

COM-FSM: Participants are using new recipes, application on food safety practices. Local stores had separated displays of expired foods. Food handlers practiced sanitary habits of preparing and storing cooked food with cover. The post survey showed that adults and students were slowly adopting food safety in their lives.

Key Items of Evaluation

PCC: Food safety training materials such as DVDs on proper food handling need to be shown to participants.

CMI: Continued partnership of all stakeholders is highly recommended for the continued safety and well-being of people's life and health.

COM-FSM: Sanitation and cleanliness in the kitchen and the observing of hygienic practices by food handlers in food preparation and storage reduced incidence of water-borne and food-borne illnesses. Keeping storage quality of food under room temperature is a challenge in islands with no electricity, ice plant and refrigeration. The questionnaires on food safety guidelines in the survey determined when and how people applied food safety after training.