

The Pacific Tracker (PacTrac): Development of a Dietary Assessment Instrument for the Pacific

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Objective

Design & test a dietary assessment instrument to assess diets & evaluate dietary change resulting from nutrition related intervention programs for children in the Pacific.

Healthy Living in the Pacific Islands (HLPI)-Healthy Pacific Child Program

- Rachel Novotny, Principal Investigator
- Suzanne Murphy, Co-Investigator
- Joel Gittelsohn, Co-Investigator
- Leo Cheung, Statistician

Applications of PacTrac

- An alternate automated method of collecting dietary data for nutrition studies in the Pacific Islands.
- An interactive user-friendly nutrition education tool tailored to diets of Pacific Islanders.
- Tool to evaluate the HLPI program & other studies in the Pacific.

Background

- The Interactive Healthy Eating Index (IHEI) was developed by the U.S. Department of Agriculture's Center for Nutrition Policy and Promotion, as an online interactive dietary assessment tool for use by the general public.
- The PacTrac is a modification of the IHEI.

Database Modifications Required

- Addition of a function to save entered dietary data and access at a later date.
- Addition of foods specific to the diet of the Pacific Island population.

Sources of Pacific Island Foods

- Cancer Research Center of Hawaii Food Composition Table
- Recipes from Guam and CNMI
- The Pacific Islands Food Composition Tables

Cancer Research Center of Hawaii Food Composition Table (FCT)

- 3100 foods
- 120 nutrients
- Nutrition information for both individual foods and mixed dishes

Sources of data for the FCT

- USDA Standard Reference
- Tables from other countries
- Papers in the published literature
- Laboratory analyses

Focus on local foods

- Almost all local foods are mixtures (recipes) rather than basic food ingredients in the FCT
- 344 local foods in the FCT were identified for addition to the existing IHEI database



Guam Recipes

- 85 recipes identified for addition to the database
- *Island Foods are Healthy: Guide for Nutritious Diets*, ADAP Project, Guam Cooperative Extension, University of Guam, 1999
- Recipes also collected from local cookbooks by EFNEP staff

Unique foods of Guam



CNMI Recipes

- 40 recipes identified for addition to the database
- Representative of typical methods of preparation
- Specific instructions for collection of ingredients and measures

The Pacific Islands Food Composition Tables

- 2nd Edition published by FAO in 2004
- Source of nutrient composition for foods consumed in the Pacific Islands
- Future addition to the database

Initial Modification of the IHEI Database

Additions for 344 FCT foods included:

- 836 gram weight measurements
- 25 new measure descriptions
- Nutrient values
- FGP servings
- Variety code servings

Pilot Testing of the PacTrac

- Test for usability & comprehensiveness of the database
- 2 boys, 2 girls (age 8 to 11 years) and their mothers participated
- 24 hour dietary data entered by mothers and children

Concerns from Pilot Testing

- Data entry by the participants was not appropriate for the goal of obtaining research quality data.
- Identification and entry of foods was difficult without previous experience with the program.
- Children, in particular, were unable to enter acceptable data.

Conclusions from Pilot Testing

- We decided:
 - To use an interviewer-administered multiple pass 24-hour recall method, with the foods hand-written by the interviewer.
 - To enter dietary data using PacTrac after the interview was completed.
 - To facilitate data entry by streamlining the food list.
- A second pilot test confirmed the feasibility of this procedure.

Subsequent Modifications to Streamline the Database

- All existing IHEI food codes replaced by FCT food codes
- IHEI includes food codes used for CSFII 1994-1996
- Reduced the number of codes from 7000 to 2900

Summary of FCT Codes in PacTrac

- 2903 food codes
- 6486 gram weight measures
- 202 new measure descriptions



Here is the food displayed for **cblitz** on 9/15/2006 1:09:49 PM

Select your serving sizes and specify how many servings you consumed for each. When you are done, click on **Save & Analyze** to save your food entry information and to analyze your food intake. If you want to make more than one day's food entry, click on **Return to Login** to save a day's food entry information and make another day's food entry. For a record of today's food entry, click **Print Food Record** prior to saving food entry. To return to initial values, click on the **Reset Values**. To add or remove food items, click on **Enter Foods**.

Foods Consumed	Select Serving Size	Number of Servings (Enter a number (e.g. 1.5))
CEREAL, SHREDDED WHEAT, SMALL BISCUITS	1 cup	1.5
MILK, SKIM OR NON FAT	1 cup	2
MANGO, PIRIE, RAW, RIPE	1 mango	1
COFFEE, CAFFEINATED, BREWED	1 mug (8 fl oz)	1
BREAD, BANANA, NO NUTS	1 piece (1/10 of loaf)	1
SOM TAM (GREEN PAPAYA SALAD) (THAI)	1 cup	1.25
GREEN CURRY, W/ SHRIMP & VEGETABLES	1 cup	1
RICE, WHITE, NOT ENRICHED, SHORT GRAIN, COOKED, NO SALT	1 cup	2
WATER	1 cup	3
FISH, SNAPPER [EHU, ONAGA, OPAKAPAKA, TA'APE, UKU], COOKED	1 fillet	1
STIR-FRIED TOFU W/ VEGETABLES	1 cup	1.5
PASSION-ORANGE-GUAVA NECTAR	1 can (11.5 fl oz)	1
PERSIMMONS, JAPANESE, RAW	1 persimmon (2-1/2 dia x 3-1/2 high)	1



HEI Score For **cblitz** on **9/15/2006 1:09:49 PM**

Click directly on the emoticon (face) for more detailed dietary information.

HEI Component	Emoticon	Score (Out of 10)	Number of Pyramid Servings Eaten	Number of Pyramid Servings Recommended
Grain		10.0	9.5	9
Vegetable		7.8	3.1	4
Fruit		10.0	4.2	3
Milk		10.0	2.3	2
Meat		10.0	2.7	2.4

HEI Component	Emoticon	Score (Out of 10)	Amount Eaten	Recommendation or Goal
Total Fat		10.0	21.1% of total calories	no more than 30%
Saturated Fat		10.0	9.5% of total calories	less than 10%
Cholesterol		10.0	209 mg	less than 300 mg
Sodium		6.0	3355 mg	less than 2400 mg
Variety		10.0	14	8

Total HEI Score: 93.8 out of a possible 100

[More information about the Healthy Eating Index](#) - To view this document you need [Adobe Acrobat Reader](#)

Current PacTrac Activities

Evaluate diets from:

Hawaii (N=370)

CNMI (N=420)

Guam (N=130)

Future Goals

- Addition of other Pacific Islands foods and recipes
- Modification of user interface to enhance usability
- Increase accessibility

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