

Hawai'i Dietetic Association Conference

May 2, 2014, 2:45-3:45pm

Building a Pacific Way to Wellness

Professor Rachel Novotny, Principal Investigator, University of Hawai'i





Session Outline

- Overview & Vision for Community Change in the Pacific Novotny, PhD RDN LDN
- Engaging the Pacific Community Fialkowski, PhD RDN LDN
- Gathering Data from Remote Underserved Minority Populations of the Pacific - Ettienne, PhD RDN
- Engaging the Pacific Student Leslie, DrPH RDN LDN
- Building a Pacific Wellness Workforce Delormier, PhD PDt
- Networking Data, People, Programs and Policies to Support a Pacific Way to Wellness - Novotny, PhD RDN LDN





Session Learning Outcomes

1. Explain Pacific-based strategies that can be applied to clinical, private or community programs to prevent (childhood) obesity

2. Explain skills needed to contribute to positive change in the Pacific

Young children in the Marshall Islands





Session Objectives

Describe:

- CHL Vision, Mission and Goal
- CHL Structure and Strategies
- Positive Deviance Approach to Community Engagement
- Positive Disruption and Pacific Ways to Wellness
- Pacific Data Needs & Plans
- Skills Needed for this Work
- Training of Pacific Students
- Future Plans

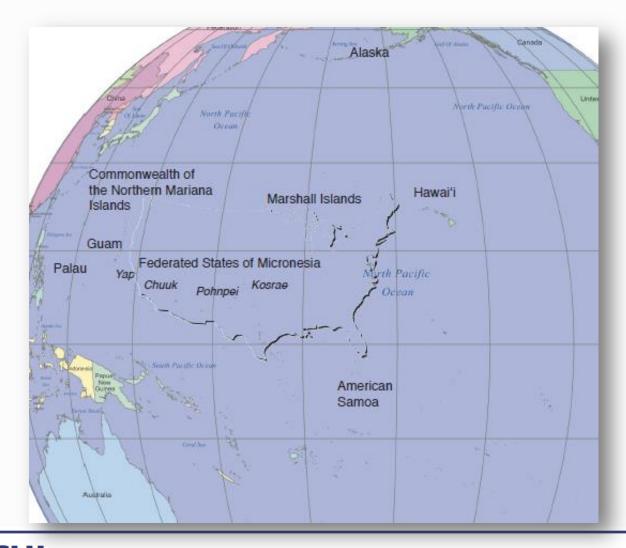
CHL Community walking intervention - American Samoa







US Affiliated Pacific Region

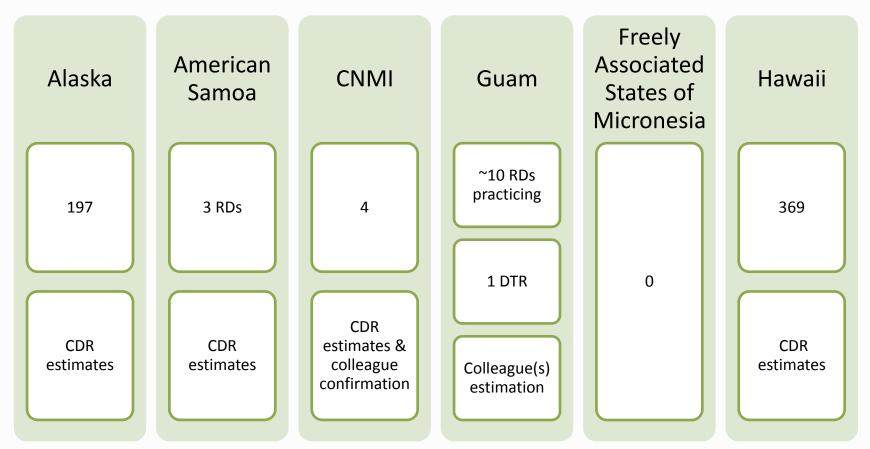


US Affiliated Pacific Region Needs & Approaches

- Obesity prevention- obesity linked to major chronic diseases – Type 2 diabetes, cancer, heart disease
- Start young for true prevention childhood
- Build data minimal data on obesity in region no NHANES
- Build Capacity few trained professionals in nutrition & obesity prevention in region
- Distinct geography and culture need locally tailored approach



Addressing the Workforce Gap: Estimates of Registered Dietitians in the Region



CDR = Commission on Dietetic Registration 2014



PREVALENCE OF YOUNG CHILD OVERWEIGHT AND OBESITY IN THE US AFFILIATED PACIFIC REGION: A META ANALYSIS FROM THE CHILDREN'S HEALTHY LIVING PROGRAM (CHL)*

RACHEL NOVOTNY¹, MARIE KAINOA FIALKOWSKI¹, FENFANG LI¹, DONALD VARGO², YVETTE PAULINO³, PATRICIA COLEMAN⁴, ANDREA BERSAMIN⁵, CLAUDIO R NIGG¹, JODI LESLIE¹, RACHAEL LEON GUERRERO³, JONATHAN DEENIK¹, JANG KIM⁴, LYNNE R WILKENS¹

¹UNIVERSITY OF HAWAII, ²AMERICAN SAMOA COMMUNITY COLLEGE, ³UNIVERSITY OF GUAM, ⁴NORTHERN MARIANAS COLLEGE, ⁵UNIVERSITY OF ALASKA, FAIRBANKS

Introduction: US NHANES not conducted in US Affiliated Pacific (USAP) Region (USAP Islands, Hawai'i, Alaska).

Purpose: Meta-analysis of published literature and publicly available agency reports conducted to estimate overweight and obesity prevalence of 2-8 year (y) old USAP children.

Methods: Literature search 2-8y USAP children data from 2000 to 2013; CDC 2010 overweight and obesity reference data; USAP region sources (n=23); contiguous US data (NHANES) served as reference (n=3).

Results: USAP overweight plus obesity increased from 21% at 2y, to 39% at 8y (p<0.0001). In comparison, NHANES overweight plus obesity increased from 24 % at 2y to 35% at 8y (p<.0001). USAP data showed with a sharp increase in prevalence at 5y. Obesity component increased from 10% at 2y, to 24% at 8y (p<0.0001) whereas overweight component was stable from 2y (13%) to 8y (15%).

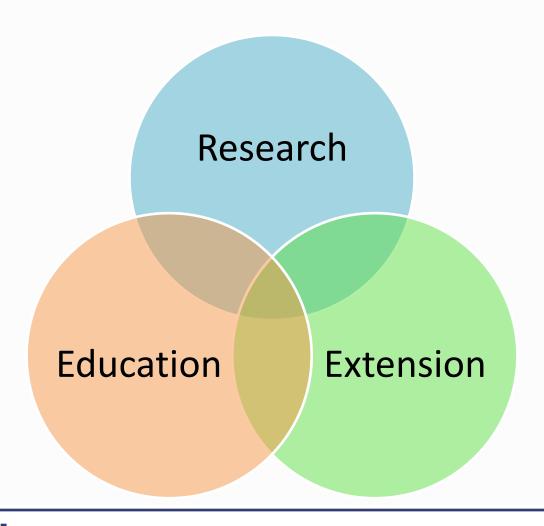
Discussion: Further examination, monitoring and understanding of USAP young child obesity is needed.

*PRESENTED AT AMERICAN SOCIETY OF NUTRITION ANNUAL MEETING IN SAN DIEGO, APRIL 2014. ABSTRACT TO BE PUBLISHED IN FASEB JOURNAL. PAPER SUBMITTED TO AJPH.





Integrated Capacity Building Program







CHL Goal: Build the social/cultural, physical/built & political/ economic environment to promote active play and intake of healthy food to prevent early childhood (2 - 8 y) obesity in the Pacific Region

Environmental/ Community Changes

Social/Cultural Environment

Example:

Family, teachers, leaders, other respected role models setting example of healthy living

Political/Economic **Environment**

Example: Influence leash laws

Physical/Built Environment

Example: Ensure water fountains are available and maintained

Promote

Healthy **Food Intake**

Decrease in sugarsweetened beverage intake

Increase in water intake Increase in fruit and vegetable intake

Physical

Decrease in recreational screen time Increase in sleep Increase in physical activity

Outcomes

Obesity Prevention

Overall **Outcome:** Healthy Young Child









CHL Vision

We envision sustainable community-based systems and environments to raise healthy children in the Pacific Region



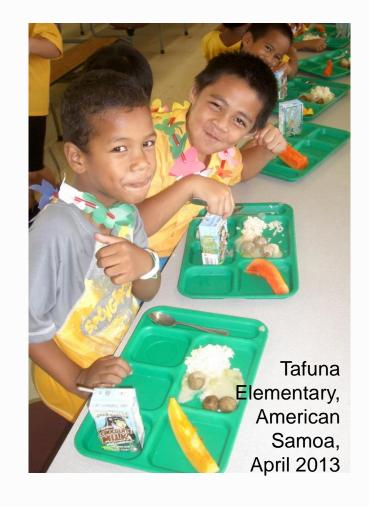
Children from the Republic of the Marshall Islands





CHL Mission

In partnership with our community, our mission is to elevate the capacity of the region to build and sustain a healthy food and physical environment to help maintain healthy weight and prevent obesity among young children in the Pacific region





External Advisory Committee

Jennifer Anderson Kathryn Kolasa Suzanne Murphy Wendy Snowdon Boyd Swinburn

CHL Organizational Structure



Principal Investigator Novotny

Program Steering Committee

Lead:

Deenik, Kim, Bersamin, Leon-Guerrero/Barber, Novotny, Vargo/Ropeti

Performance Sites

FAS: FSM, RMI, Palau; CNMI; Alaska; Guam; Hawaii; Am. Samoa

Local Advisory Committees

Land Grant Dir.
Chair:
Currie, Samson,
Taro;
Manglona; Sparrow,
Yudin, Gallo, Aga

Data Center

Lead: Wilkens

Training / Education Center

Lead: Dunn / Fialkowski Leslie / Delormier

External Communication Center

Lead: Hollyer / Takahashi

Intervention Center

Lead: Nigg / Braun Butel

Coordinating Center

Program Director: Novotny

Assistant Program Director: Fialkowski

Program Administrator: Yan Conference Coordinator: Chun

IT Manager: DeBusk

Situation Analysis Center Lead: Fialkowski / DeBaryshe





CHL Target Population

- Grant requirement: children ages 2 8 years
 - Head Start
 - Preschool
 - Day Care
 - Kindergarten
 - Community Health Centers
 - Community Centers
 - Community Events



Images from CHL brochure, courtesy of Center on the Family

Supplemental Feeding Program for Women, Infants, & Children



CHL Objectives

- 1. Conduct program / data inventories & situation analysis
- 2. Train 22 professionals & paraprofessionals in obesity prevention in degree programs
- 3. Develop Pacific food, nutrition & physical activity data management & evaluation system
- 4. Develop & conduct an environmental intervention (to prevent, maintain or decrease young child overweight & obesity in the Pacific Region
- 5. Evaluate the community based primary prevention environmental intervention
- 6. Incur at least one obesity prevention policy change per state / jurisdiction





CHL (6 behavioral outcomes, 3 health outcomes)

Primary



- 1. Sleep by 15 min/day
- 2. Moderate to vigorous physical activity by 10 min/day
- 3. Fruit & vegetable intake by 1 serving/day (1/2 c/day)
- 4. Water intake by ½ cup/day

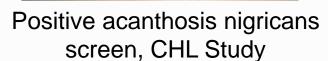


- 5. Sedentary behavior (screen time) by 10 min/day
- 6. Sweetened beverage intake by ½ cup/day
- 1. Prevalence of obesity by 8% (0.10 kg/m² decrease in BMI z-score)
- 2. Waist circumference by 2%

Secondary

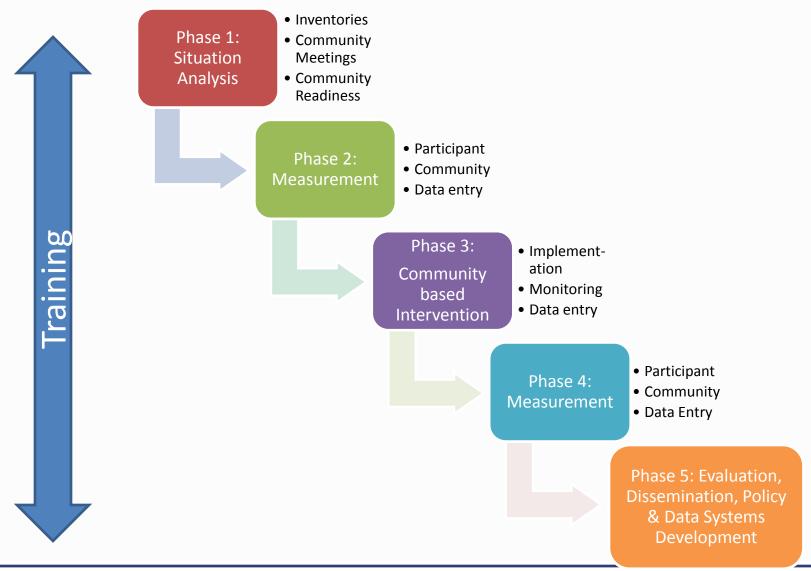


3. Acanthosis nigricans by 5%





CHL Phases







Dr. Marie Kainoa Fialkowski CHL Assistant Program Director



Engaging the Pacific Community

Committy best Done, Cipones **Partners** Flip the Paradigm Bottom up approach Asset driven Community driven

19

Need for Community Engagement

- Addressing childhood obesity requires multiple perspectives, including the community to address the issue
- Community needs vary
- Application of positive deviance
 - Identify individuals in a community engaging in behaviors that are health promoting
- Take advantage of the community's existing assets or strengths
 - Identify what is working in a community NOT what is wrong

Increase likelihood of sustainability

ANGELO – Analysis Grid for Elements Linked to Obesity (Swinburn & colleagues)

CHL SITUATIONAL ANALYSIS & SCAN	MERGE	PRIORI- TIZE	FORMU- LATE	GOALS
Demographic, health, risk, and other data	Strategies from:	Importance	Action Plans	Healthy Eating 1. Decrease in SSB intake 2. Increase in
Community suggestions to address obesogenic environments	Community Literature	Do-ability		water intake 3. Increase in fruit & vegetable intake
PhysicalSocial				Physical Activity 4. Decrease in
Policy				leisure screen time
Scientific literature				5. Increase in sleep
				6. Increase in physical activity

CHL Community Engagement Process

Stage 1 **Develop Local Advisory Committees (LAC)** Stage 2 Meet with Key Informants Stage 3 Hold Community Meetings Stage 4 Conduct Community Readiness Assessments Stage 5 Hold Community Feedback Meetings

























Much of what the community wants is supported by the literature

Community wants	Supported by literature	Supported by community
Policies	X	X
Access to water	X	X
Environmental changes for PA	X	X
Healthy living education	X	X
Product and shelf labeling	X	
Access to affordable produce (including gardening)	X	X





				_				
CHL In	nte	rvention: Cross-Cutting Functions, Activities & Behavioral Targets	4	1	1	1	+	↑
			SSB	F/V	PA	Water	Screen	Sleep
Review A	Asse	ssment Data for Policy & Physical Environment related to the 6 CHL behaviors						
a.	. F	Review preschool wellness policy assessment data to identify training needs	X	Х	Х	X	X	x
b.	. F	Review community assessment data to identify areas for advocacy for PA env.	X	Х	X	X		
Partner a	and .	Advocate for Environmental Change						
a.	٠ ١	Nork with coalitions to advocate for						
		i. Better access to parks that are safe & inviting			Х			
		ii. Better access to clean water	Х			Х		
		iii. Safer environments for walking & biking			Х			
		iv. Better food placement in stores	Х	Х		Х		
		v. Gardens & hydroponics		Х	Х			
b.	. F	Partner with existing entities to purchase or obtain sponsorship for						
		i. Water in the preschools	Х			X		
		ii. Gardening supplies for preschool kids		Х	Х			
		iii. Sports equipment for preschool kids			Х			
		iv. Campaigns & messages	X	Х	X	Х	x	x
Promote	the	CHL Message						
a.	. s	Support role models to deliver CHL messages in various	Х	Х	Х	X	x	x
b.	. E	nhance existing social marketing campaigns related to 6 CHL behaviors	Х	Х	Х	Х	x	х
c.	. /	Advertise CHL or other activities that promote 6 CHL target behaviors	Х	Х	Х	Х	х	x
Train the	Tra	iners						
a.	. 1	rain individuals to promote gardening in preschools & communities	Х	Х	Х	X	x	x
b.	. 1	rain individuals to lead interactive, hands-on, & family-based sessions	Х	Х	Х	x	x	x
с.	. 1	rain preschool providers on wellness policies	Х	Х	Х	x	x	x
d.	. 1	rain preschool providers in curricula related to 6 CHL target behaviors	Х	Х	Х	x	x	x
e.	. 1	rain role models (community champions, role celebrities, role models)	Х	Х	Х	х	x	x
							1	1



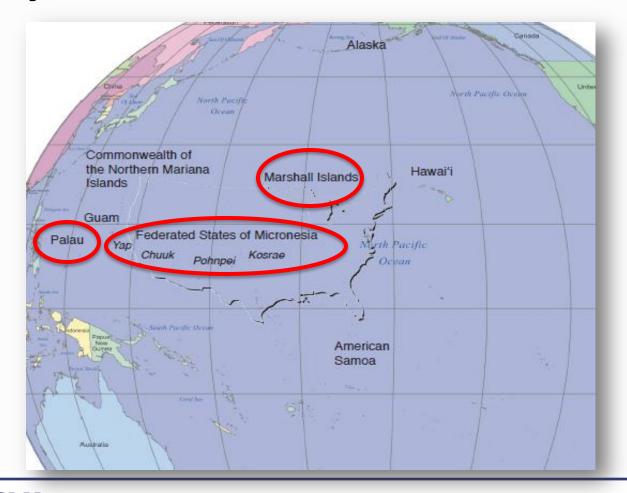


Implementing These Strategies

- Partners with, supports, and "adds value" to existing programs that are conducting activities related to CHL's 6 behavioral outcomes (positive deviance)
- Builds local capacity to sustain programs and policy changes
- Promotes a common CHL message
- Collects process information on the implementation strategies, duration, and reach



Dr. Reynolette Ettienne CHL Coordinator for the Freely Associated States of Micronesia







Underweight, Overweight & Obesity Prevalence Survey

Freely Associated States: Palau, Marshalls (RMI), Chuuk, Kosrae, Pohnpei, Yap

- Determine the prevalence of underweight, overweight, and obesity in a representative sample of young children, ages 2

 8y, from each (FSM) jurisdiction
- Data: Anthropometry (height, weight, waist), Acanthosis Nigricans, Accelerometry, Questionnaires (Sleep, Sedentary Behaviors, Culture, Demographics, General Health screening), Food and Activity Logs (FAL), Community obesity prevention environmental assessment (CAT), Food & Utility cost survey
- Approximate sample size 200 children per FSM jurisdiction





Prevalence Survey (cont'd)

Freely Associated States: Palau, Marshalls (RMI), Chuuk, Kosrae, Pohnpei, Yap

• Surveys completed:

Pohnpei Oct 23 - Nov 7, 2013

RMI Jan 9 - Feb 3, 2014

Palau April 7 - 18, 2014

Upcoming Surveys:

Chuuk July - Aug 2014

Yap Sept-Oct 2014

Kosrae Jan 2015 (tentative)



Child from Pohnpei being measured by CHL FAS staff





Gathering data with Remote Underserved Minority Populations of the Pacific

- Multilevel Measures unique to study and region
 - Adaptation of measures and questionnaires to the Freely Associated States of Micronesia
 - Food and Activity Logs (food sources, recipes)
 - Demographics (Betel nut, Tobacco, Alcohol, Water source, Food security/Resource availability)
 - Community Assessment Tool [addition of (region specific) response options e.g. "local foods" and "merchant ships" added to food availability survey, communal "play" spaces on park observation]



FC	RM	23	-02
	F/	AS	

Children's Healthy Living Program Information About Your Child



For O	ffice	Use	Only	У				
Child's	ID:							
Date:		_/	_/_					
Checke	MM d by:	DD	Y	EAR	 	 	 	

BETEL NUT USAGE

1.	Have you ever chewed betel nut?									
	☐ Yes			☐ No response						
2.	Do you now chew betel nut?									
	■□ Yes □ No			Don't kn	iow		No response			
	If yes, how often	do you chew b	etel nı	ut?						
	☐ Daily ☐ We	ekly 🔲	Month	nthly Don't know			☐ No response			
	If yes, how long h	ave you been	chewi	ng betel n	ut?					
	years		Don't	know	☐ No response					
	If yes, do you incl	ude:								
	Tobacco (from cigarette, snuff, twist tobacco, Red Man) when chewing betel nut?									
	☐ Yes	□ No		☐ Don't kn	ow	□ No r	response			
	Lime when ch	ewing betel nu	ıt?							





Gathering data from Remote Underserved Minority Populations of the Pacific (cont'd)

- Importance of involving local key community personnel (LAC and Local staff);should not be singular entity, but diverse group
- Be aware of the cultural norms of particular area;
 gathering norms, mode/code of dress etc.
- Language is important (important to have someone on your team who speaks the language)
- Sustainability: training local staff to carry on the vision and mission beyond CHL



Dr. Jodi Leslie CHL Training Coordinator



Engaging the Pacific Student



Capacity Building Through Training Building the Future!

I. CHL Scholarship Program

Provide academic degree training for indigenous students in CHL region- 2 from each jurisdiction, including 2 from each state of Freely Associated States of Micronesia

II. CHL Capacity Building Program for the Pacific Region

Help develop sustainable, culturally appropriate, nutrition courses & programs & within existing academic institutions in the region



CHL Trainees Cohort 1



Left to right: Ashely, Rachel, Caleb, Lenora, Tanisha, Edumyle, Ron, Rose, Neelma, Monica, Patty

FIRST	LAST	JURISDICTION	DEGRE	E PROGRAM	INSTITUTION
Ron	Standlee-Strom	Alaska	MS	Natural Resources Management	University of Alaska Fairbanks
Rose	Castro	CNMI	MPH	Public Health	University of Alaska, Anchorage
Patricia	Coleman	CNMI	MPH	Public Health	University of Alaska, Anchorage
Neelma	Skilling	FAS - Kosrae	BS	Food Science & Human Nutrition	University of Hawaii at Manoa
Edumyle	Otobed	FAS - Palau	BS	Food Science & Human Nutrition	University of Hawaii at Manoa
Tanisha	Aflague	Guam	PhD	Nutrition	University of Hawaii at Manoa
Lenora	Matanane	Guam	MS	Nutritional Sciences	University of Hawaii at Manoa
Monica	Esquivel	Hawaii	PhD	Nutrition	University of Hawaii at Manoa
Ashley	Morisako	Hawaii	MPH	Public Health	University of Hawaii at Manoa

CHL Trainees Cohort 2

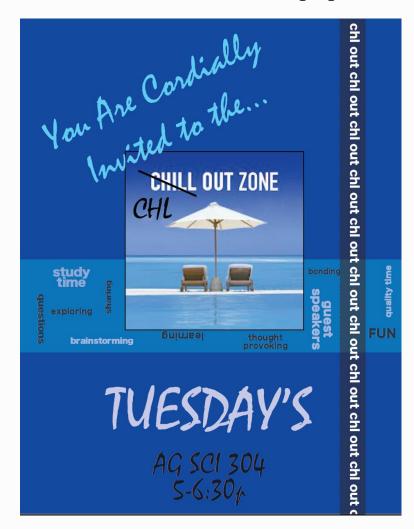


Left to right: Trisha, Rennie, Srue, Aifili, Lilian, Evigan, Kimo, Kim, Ivenglynn, Marietta

FIRST	LAST	JURISDICTION	DEGRE	E PROGRAM	INSTITUTION
Tara	Stiller	Alaska	MPH	Public Health	Univeristy of Alaska, Anchorage
Marietta	Lafaele	Am Samoa	BS	Food Science & Human Nutrition	University of Hawaii at Manoa
Aifili	Tufa	Am Samoa	PhD	Epidemiology	University of Hawaii at Manoa
Lilian	Billimon	FAS - Chuuk	BS	Health Sciences	University of Guam
Joachim	Castro	FAS - Chuuk	BS	Food Science & Human Nutrition	University of Hawaii at Manoa
Evigan	Sengebau	FAS - Kosrae	BS	Health Sciences	University of Guam
Srue	Wakuk	FAS - Kosrae	BS	Food Science & Human Nutrition	University of Hawaii at Manoa
Ivenglynn	Andon	FAS - Pohnpei	BS	Health Sciences	University of Guam
Trisha	Johnson	FAS - Pohnpei	BS	Food Science & Human Nutrition	University of Hawaii at Manoa
Kimberly	Areieta	FAS - RMI	BS	Nursing	University of Guam
Shra	Kedi	FAS - RMI	BS	Food Science & Human Nutrition	University of Hawaii at Manoa
Samuel	Foulchag	FAS - Yap	BS	Food Science & Human Nutrition	University of Hawaii at Manoa
Rennie Glenn Taiugmai	Kiyomasa	FAS - Yap	AS	Exercise & Sport Sciences	Kapiolani Community College

Educational and Transitional Support

- Student mentors
- TA support
- Academic advisors
- TRIO
- #CHLout
- CHL advisors
- CHL program support
- Cohort socials
- Cultural clubs







Advantages

- Development of professional Pacific network, trained in nutrition & obesity prevention
- Trained indigenous workforce
- Increased cultural sensitivity and understanding
- Teacher-student co-learning
- Student-student co-learning







Challenges

- Cultural differences:
 - Perspectives
 - Communication styles
- Transition to:
 - New location
 - Independence
 - College
- Balancing class content





Dr. Treena Delormier CHL Training Program Collaborator

- Role is contributing to the CHL training curriculum for CHL trainees
- Co-instructing the CHL seminars with the trainees
- Exploring ways to sustaining CHL training program



Guest speaker and kupuna Amelia McGregor Shares a community perspective on research CHL trainees in Cohort 1.





CHL Training Curriculum

CHL Seminars (1 credit) – Pacific Perspectives on:

- 1. "Foundations of obesity"
- "Evidenced-based approaches for childhood obesity prevention"
- 3. "Community engagement& capacity-building"
- 4. "Policy & advocacy in preventing childhood obesity"

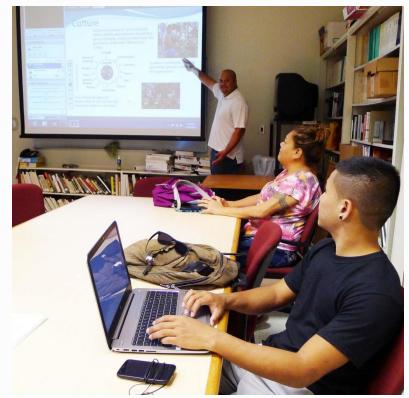
Upcoming Fall 2014 - Spring 2015

- 5. Indigenous seminar with Native Hawaiian & Indigenous Health MPH cohort
- 6. CHL Seminar knowledge translation & dissemination



Sustainability of CHL Training Goals

- Integrating CHL curriculum into Nutrition, Public Health, Nursing, Early Childhood Education
- CHL training tied to home jurisdictions
- CHL trainees integral to the CHL research
- Integrating CHL course content into Nutrition Program
- Introductory Nutrition course integrating a Pacific Perspective of Pacific food and nutrition
- Integrating trainees as instructors



CHL trainee Aifili Tufa PhD student (epidemiology) guest teaching CHL seminar





Innovative Aspects

- Creating opportunities for Pacific Islander students to address issue important to their communities
- Having Indigenous instructors with experience in nutrition, public health and community-based research experience
- Advocating/balancing trainee's needs, aspirations and listening to their concerns
- Building community capacity to address complex health issues



CHL trainee Sam Foulchag





Challenges

- University context expectations, values and norms
 require trainees time and
 support to navigate
- Grant time frame and degree achievement
- Community expectations are added to degree expectations
- Diverse educational preparation of trainees requires extensive tailoring of curriculum, advising & cultural competence



CHL trainee Rennie Kyomasa





Dr. Rachel Novotny CHL Program Director

Networking Data, People, Programs and Policies to Support a Pacific Way to Wellness







CHL Pacific food, nutrition & physical activity data management & evaluation (monitoring) system in development

- Partnerships developed or developing in CHL jurisdictions
 - Head start / Early Childhood Education (ECE) Centers to collect and share BMI data
 - DOE- BMI data collection & analysis
 - School entry physicals for BMI data
 - MCH program- growth monitoring data
 - MANA program- Pacific wide monitoring
 - BRFSS behavioral risk monitoring







Other data needed & being collected to evaluate community based program & under consideration for ongoing data system/monitoring

- Community Food and Physical Activity Environment Assessment (e.g. parks, stores, etc...)
- Community Food Costs (cost of basic foods & utilities)
- Individual Diet and Physical Activity Tracking (subsampleusing Pacific Tracker tool)





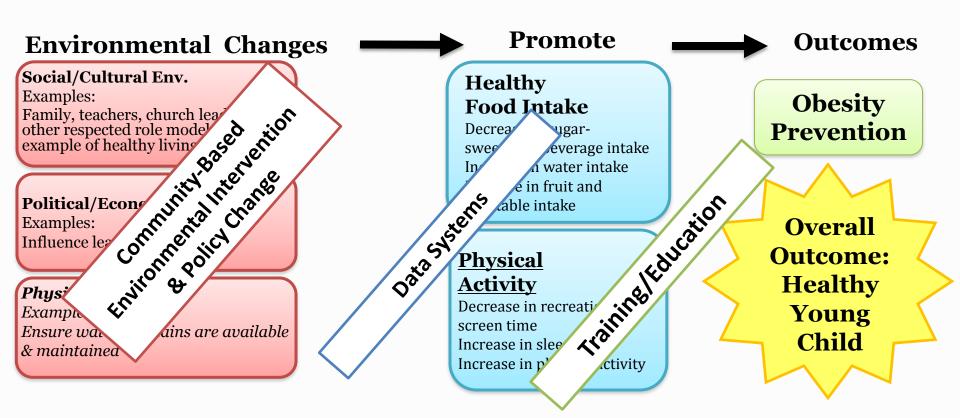
Working with nutrition related academic programs in colleges in Pacific

- Nutrition UH-Hawaii, UOG-Guam
- Public Health UH-Hawaii, UOG-Guam, UAA-Alaska, COM-Micronesia
- Nursing UH-Hawaii, KCC-Kapiloani, WCC-Windward, UOG-Guam, NMC- Marianas, COM-Micronesia
- Early Childhood Education UOG-Guam, NMC-Marianas, COM-Micronesia, ASCC-Samoa
- Natural Resources UAF- Alaska





Children's Healthy Living Program







Skills: Role Modeling & Fostering Leadership in Communities

- Building on concepts of positive deviance and positive disruption
- Identified varied role models and fostered leadership among them in communities of the US Affiliated Pacific region

Community
Leaders meet in
CNMI







Summary

- Pacific strategies can be applied to clinical, private or community programs to prevent (childhood) obesity
 - community engaged, culturally adapted, built on strengths
- Skills needed to contribute to positive change in the Pacific
 - adapt, problem solve, partner, role model, build on what's working (support positive deviance & build positive disruption)



Implications for Dietetics

 Reach of dietetic work extends from clinical to community and region

 Impact of nutrition is both down stream (health and disease) and up stream (causes of diet and nutrition status)

• Dietitians - prepare for a diverse environment!





Thank you from the CHL Team!



CHL Annual Meeting, Guam June 2013



