Unanticipated Workforce Development in the Children's Healthy Living Program (CHL)

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Organization: ¹University of Hawai‘i at Mānoa; ²University of Guam; ³University of Alaska, Fairbanks; ⁴American Samoa Community College; ⁵Northern Marianas College
On behalf of...
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 Env.
Possible examples:
• Family, teachers, leaders, other respected role models setting example of healthy living

Political/Economic Env.
Possible examples:
• Influence leash laws

Physical/Built Env.
Possible examples:
• Ensure water fountains are available and maintained

Promote

Healthy Food Intake
• Decrease in sugar-sweetened beverage intake
• Increase in water intake
• Increase in fruit and vegetable intake

Physical Activity
• Decrease in recreational screen time
• Increase in sleep
• Increase in physical activity

Outcomes

Obesity Prevention

Overall Outcome: Healthy Young Child
CHL: Integrated Capacity Building Program

Research

Education

Extension
CHL: Multilevel Multicomponent (MLMC) Child Obesity Program

• CHL Community Engagement
  – 11 Pacific jurisdiction collaborative
**CHL Phases: 2011 - 2017**

**Phase 1: Situation Analysis**
- Inventories
- Community Meetings
- Community Readiness

**Phase 2: Measurement**
- Participant
- Community
- Data entry

**Phase 3: Community based Intervention**
- Implementation
- Monitoring
- Data entry

**Phase 4: Measurement**
- Participant
- Community
- Data Entry

**Phase 5: Evaluation, Dissemination, Policy & Data Systems Development**

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**CHL**
Children’s Healthy Living Program
for Remote Underserved Minority Populations in the Pacific Region
Alaska · American Samoa · Federated States of Micronesia · Guam · Hawai‘i · Marshall Islands · Northern Mariana Islands · Palau
## Child Enrollment & Measurement (Intervention groups in bold)

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Consented</th>
<th>Anthropometry</th>
<th>FAL*</th>
<th>Acticals*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guam – 24 month</td>
<td>908</td>
<td>858</td>
<td>705</td>
<td>404</td>
</tr>
<tr>
<td>CNMI – 24 month</td>
<td>1,011</td>
<td>1,001</td>
<td>653</td>
<td>485</td>
</tr>
<tr>
<td>Am. Samoa – 24 month</td>
<td>950</td>
<td>950</td>
<td>569</td>
<td>360</td>
</tr>
<tr>
<td>Hawaii – 24 month</td>
<td>1,034</td>
<td>1,016</td>
<td>423</td>
<td>408</td>
</tr>
<tr>
<td>Alaska – 24 month</td>
<td>782</td>
<td>741</td>
<td>340</td>
<td>247</td>
</tr>
<tr>
<td><strong>24 Month Intervention Total</strong></td>
<td><strong>4,685</strong></td>
<td><strong>4,566</strong></td>
<td><strong>2,690</strong></td>
<td><strong>1,904</strong></td>
</tr>
<tr>
<td><strong>Baseline Intervention Total</strong></td>
<td><strong>4,488</strong></td>
<td><strong>4,443</strong></td>
<td><strong>2,614</strong></td>
<td><strong>2,032</strong></td>
</tr>
<tr>
<td>FAS Prevalence Study</td>
<td>1,287</td>
<td>1,227</td>
<td>1,149</td>
<td>554</td>
</tr>
<tr>
<td>CHL Total</td>
<td>10,460</td>
<td>10,236</td>
<td>6,454</td>
<td>4,490</td>
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</tbody>
</table>

*target was 150 for FAL (food and activity log) and 100 for Actical accelerometers per community
### CHL MLMC Intervention Template: 4 Cross-Cutting Functions, 19 Activities & 6 Behavioral Targets

#### Policy: Review Assessment Data for Policy & Physical Environment related to the 6 CHL behaviors

<table>
<thead>
<tr>
<th>Function</th>
<th>SSB</th>
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<th>PA</th>
<th>Water</th>
<th>Screen</th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Review preschool wellness policy assessment data to identify training needs</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>b. Review community assessment data to identify areas for advocacy</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

#### Environment: Community Partnership and Advocacy for Environmental Change

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>a. Work with coalitions to advocate for</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>i. Better access to parks that are safe &amp; inviting</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Better access to clean water</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Safer environments for walking &amp; biking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Better food placement in stores</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. Gardens &amp; hydroponics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Partner with existing entities to purchase or obtain sponsorship for</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>i. Water in the preschools</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Gardening supplies for preschool kids</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Sports equipment for preschool kids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Campaigns &amp; messages</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

#### Messaging: Promote the CHL Message to Community

<table>
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<tr>
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<th>Screen</th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Support role models to deliver CHL messages in various venues</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Enhance existing social marketing campaigns related to 6 CHL behaviors</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Advertise CHL or other activities that promote 6 CHL target behaviors</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td></td>
</tr>
</tbody>
</table>

#### Capacity Building: Train the Trainers /Role models

<table>
<thead>
<tr>
<th>Function</th>
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<th>Screen</th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Train individuals to promote gardening in preschools &amp; communities</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Train individuals to lead interactive, hands-on, &amp; family-based sessions</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Train preschool providers on wellness policies</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Train preschool providers in curricula related to 6 CHL target behaviors</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Train role models (community champions, role celebrities, role models)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
CHL Training Program

Scholarship
Provide academic degree training for Indigenous students

Capacity Building
Sustainable & culturally appropriate nutrition courses and programs within existing academic institutions in the region
For further detail on the CHL MLMC

Friday, October 14, 2016
Breakout Session: Addressing Obesity and Diabetes Inequities in Pacific Communities
10:45 AM – 12:00 PM

CHL multilevel multicomponent intervention for child health in native communities in the US Affiliated Pacific

Rachel Novotny
CHL: Integrated Capacity Building Program

Research

Education

Extension
Presentation Objective

To evaluate the unanticipated workforce development of a multi-level and multi-site integrated program.
Workforce Development Needs

• Regional health care systems challenged by workforce shortages and under-training
• Few have training/resources to assess community needs, deliver multi-component programs
  – Address modern mix of food, nutrition, related public health issues
  – Not adequately prepared to address childhood obesity

Workforce Development Needs

• Native Hawaiian and Pacific Islanders are underrepresented in biomedical sciences, the science, technology, engineering, and mathematics discipline, and the dietetics profession
  – Native Hawaiian and Pacific Islanders suffer greater health disparities

Global Call

Workforce that can function in multi-sectoral team with a combination of technical, communication, advocacy, and leadership skills to address the nutrition issues of this century

Coordinated Effort to Accomplish CHL Goals

- Teams in 11 jurisdictions
  - Housed mainly at local Land Grant Institutions (with variation in FAS)
  - Over ~200 individuals employed by CHL
CHL Workforce Development Examples

• Complete Collaborative Institutional Training Initiative training:
  – Human Subjects Basic Research Course
  – Health Information Privacy & Security

• Participate in collaborative leadership training (Dr. Donna Ching)

• Training related to:
  – Data collection (anthropometry, diet, etc)
  – Role modeling (health behaviors)
CHL Workforce Development Examples

- Credit Coursework
  - Online Pacific Adapted Introductory Nutrition Course

- Attend & Present at Local and National Conferences
  - E.g. Hawai‘i Public Health Conference, Experimental Biology
CHL Workforce Development Examples

• Collaborative & Interdisciplinary Working Process
  – Weekly Conference Calls
  – Bi-annual Virtual Meetings
  – Annual Face to Face Meeting
Began to Notice…

- CHL affiliated employees took advantage of institutional training opportunities
  - Employee tuition waivers
- Apply CHL experience to other area
- Selected for advancement in their institutions
Unanticipated Advancement Examples

• Deans (2), Directors (Research – 1; Extension – 3, Centers – 1, Undergraduate Program – 1), Chairs (2)

• Job Advancement
  – Faculty Positions (1)
  – Tenure (2) and Promotion (4)
  – Health Educator (1)
  – Extension Agent (1) & Extension Specialist (1)
  – State Epidemiologist (1)
  – Instructor (1)
Unanticipated Advancement Examples

• Further education
  – Undergraduate Education (BA – 7 [Computer Science, Early Childhood Education, Family & Consumer Sciences, Financing])
  – Graduate Education (MPH - 4, MS – 3 [Community Development, Interdisciplinary, Epidemiology], PhD – 3 [Epidemiology], DrPH - 1)
  – Attend Medical School (1) & Nursing School (2)
  – Dietetic Internship (4)
Unanticipated Advancement
Examples

• Publications
  – Published
    • Li F et al, American J Human Biology. 2015.
    • Butel J et al, TBM. 2015.
  – Under review
    • Yonemori K et al, J Acad Nutr Diet
Unanticipated Advancements

• Total Employees Counted = 40
  – 24 of these employees local (born and raised) to the region
  – 20 are Native Hawaiian/Pacific Islander
Note

• This is in addition to the advancements made by the CHL Trainees who completed the CHL Training Program
  – Assistant Professor (Guam)
  – Registered Dietitian (Guam)
  – Medical School (Hawaii)
  – WIC Nutritionist (Yap)
  – Research Associate (Kosrae)

• Others completing their degrees (BS to PhD)
Elements That Allow to Happen

• Direct result of working with CHL
  – Multidisciplinary nature
• Interaction of CHL environment and employee’s characteristics
• Natural professional trajectory
• In addition to other factors…
Win-Win

• Employees able to leverage CHL for their advancement

• Increase likelihood of CHL’s message being sustained
MISSION STATEMENT

Our mission is to elevate the human capacity of the region to promote childhood health through formal training that is globally relevant and locally applicable in the Pacific.
CHL Summer Institute

PROGRAM LEARNING OUTCOMES

P1 Evaluate and apply the major concepts and methods for childhood obesity assessment, monitoring and prevention.
P2 Perform effective field assessment techniques for childhood obesity assessment, monitoring and prevention.
P3 Apply culturally appropriate strategies.
P4 Employ appropriate technology for childhood obesity assessment, monitoring and prevention.
P5 Apply principles of community-based engagement and research to their practices.
P6 Distinguish and apply evidence-based childhood obesity prevention practices.
P7 Use knowledge and skills related to childhood health policy to advocate for childhood obesity prevention.
P8 Model healthy practices as community leaders in childhood health.
P9 Demonstrate personal characteristics and leadership, management, and human relations skills appropriate to professional and community-based practice in careers related to childhood health.

PROGRAM COURSES

- Technology Skills for Students
- The Science of Human Nutrition
- Childhood Anthropometric and Dietary Assessment Field Techniques
- Lifespan Nutrition
- Childhood Health and Nutrition Monitoring in the Pacific
- Foundations of Childhood Obesity Prevention in the Pacific
- Culturally Sensitive Approaches to Childhood Obesity Prevention
- Practicum in Childhood Obesity Prevention

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To Learn More…

https://dcdc.coe.hawaii.edu/chl/si/index.html
Context for Capacity Building

• Multicomponent programs have capacity to have multiplicative impacts
  – Can be tough to measure
    • Often underestimated
Further Investigation

• Determine what helps individuals in multicomponent programs like CHL to develop professionally (qualitative)

• Formal tracking over the long term (quantitative)

• Important for reporting program outcomes
CHL and the CTAHR Value Chain

While working to prevent childhood obesity among underserved Pacific populations, the extramurally funded, CTAHR-led, 5-year $25-million Children’s Healthy Living (CHL) Program www.chl-pacific.org generates positive effects for Hawai‘i’s economy.

Healthier citizens are more productive; they generate economic activity and have less need for State assistance and costly health care.

The program and the people it employs pay taxes and buy from local businesses.

CHL pays an estimated $113,489 in State general excise taxes.

CHL funding brought into the state is equal to 165 years of the principal investigator's salary.

CHL employs 91 staff and 38 students and funds jobs through community agencies.

 vindenieded 91 million goes to partner universities and community agencies.

Sub-Contracts

Employment

Goods and Services

Partner Institutions

Citizens of Hawai‘i, Alaska, and Affiliated Pacific Islands

USDA National Institute of Food and Agriculture

Children’s Healthy Living Program

Direct Benefit: Local solutions to prevent childhood obesity

Overhead

The university keeps a portion of the grant as cost recovery; 75% is returned to Mānoa, which returns some to CTAHR

Grant-supported graduates provide nutrition and wellness education and services to the citizens of Hawai‘i, Alaska, and the Pacific Islands.

Student Support

Based on multiplier effects calculated for UH as a whole, salaries paid and purchases made by CHL generate about $27 million in business sales and $2 million in State tax revenue and support an estimated 221 jobs creating $8 million in employee earnings.

Sources: Children's Healthy Living Program; Office of Research Services 2014–15 Annual Report; UH-RO Economic Impact of the University of Hawai‘i
Visit us at:
http://www.chl-pacific.org/