PILI ‘Ohana Program
Preliminary Results

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Principal Investigator
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468 Respondents screened
130+60 from Grassroots
151+67 from CHC
60 from KOM

372 Eligible to participate
94+52 from Grassroots
109+65 from CHC
52 from KOM

277 Consented and underwent baseline assessment
110 from Grassroots
115 from CHC
52 from KOM

197 Received 3-month weight loss intervention
89 from Grassroots
39 from CHC
69 from KOM

144 Completed 3-month follow-up and underwent randomization
50 from Grassroots
57 from CHC
37 from KOM

72 Assigned to family/community-focused weight maintenance intervention group
29 from Grassroots
26 from CHC
17 from KOM

72 Assigned to standard phone call follow-up group
21 from Grassroots
31 from CHC
20 from KOM

95 Declined participation

## Lost to follow-up
## Declined
## Health problems

49 Completed 9-month follow-up
24 from Grassroots
15 from CHC
10 from KOM

51 Completed 9-month follow-up
14 from Grassroots
19 from CHC
18 from KOM

Figure 1. Study Enrollment and Retention
## Baseline Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Community Type</th>
<th>Combined Total (N = 277)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grassroots (n = 110)</td>
<td>KOM (n = 52)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong>‡‡</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chuukese</td>
<td>5 (4.5)</td>
<td>1 (1.9)</td>
</tr>
<tr>
<td>Filipino</td>
<td>89 (80.9)</td>
<td>47 (90.4)</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>8 (7.3)</td>
<td>3 (5.8)</td>
</tr>
<tr>
<td>Samoan</td>
<td>1 (0.9)</td>
<td>1 (1.9)</td>
</tr>
<tr>
<td>Other Pacific Islander</td>
<td>7 (6.4)</td>
<td>0</td>
</tr>
<tr>
<td>Non-Pacific Islander</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
<td>50.5 ± 17.1</td>
<td>46.1 ± 13.9</td>
</tr>
<tr>
<td><strong>Females</strong>‡‡</td>
<td>81 (73.6)</td>
<td>44 (84.6)</td>
</tr>
<tr>
<td><strong>Education level</strong>‡‡</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than H.S.</td>
<td>3 (2.7)</td>
<td>1 (1.9)</td>
</tr>
<tr>
<td>H.S. diploma/GED</td>
<td>26 (23.6)</td>
<td>23 (44.2)</td>
</tr>
<tr>
<td>Some college/tech.</td>
<td>45 (40.9)</td>
<td>16 (30.8)</td>
</tr>
<tr>
<td>College degree</td>
<td>36 (32.7)</td>
<td>12 (23.1)</td>
</tr>
<tr>
<td><strong>Marital Status</strong>‡</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>29 (26.4)</td>
<td>18 (34.6)</td>
</tr>
<tr>
<td>Currently married</td>
<td>55 (50.0)</td>
<td>24 (46.2)</td>
</tr>
<tr>
<td>Disrupted marital status</td>
<td>26 (23.6)</td>
<td>10 (19.2)</td>
</tr>
</tbody>
</table>

Data shown as n (%) or M ± SD.

‡‡ Fisher’s exact test. Adjusted for multiplicity using Hochberg step-up procedure.

*Values log-transformed based upon multivariable log-normal plots.

§§ Statistically significant, p<0.05.
## Baseline Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Community Type</th>
<th>Combined Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grassroots (n = 110)</td>
<td>KOM (n = 52)</td>
</tr>
<tr>
<td>Weight (kg)§†*</td>
<td>100.8 ± 27.7\textsubscript{a}</td>
<td>117.4 ± 34.1\textsubscript{b}</td>
</tr>
<tr>
<td>BMI§†</td>
<td>36.4 ± 8.4\textsubscript{a}</td>
<td>43.9 ± 10.8\textsubscript{b}</td>
</tr>
<tr>
<td>Systolic BP§†*</td>
<td>132.7 ± 20.5\textsubscript{a,b}</td>
<td>138.7 ± 26.0\textsubscript{a}</td>
</tr>
<tr>
<td>Diastolic BP§†*</td>
<td>81.8 ± 10.8\textsubscript{a}</td>
<td>88.7 ± 14.4\textsubscript{b}</td>
</tr>
<tr>
<td>6-Min. Walk (ft)</td>
<td>656.5 ± 177.2</td>
<td>626.9 ± 101.4</td>
</tr>
<tr>
<td>Physical Activity Frequency Score</td>
<td>3.4 ± 1.1</td>
<td>3.5 ± 1.2</td>
</tr>
<tr>
<td>Change in Physical Activity score</td>
<td>-0.1 ± 0.8</td>
<td>-0.1 ± 0.8</td>
</tr>
<tr>
<td>Fat in diet score§†</td>
<td>2.9 ± 0.4\textsubscript{a}</td>
<td>3.0 ± 0.4\textsubscript{b}</td>
</tr>
</tbody>
</table>

Data shown as \(n\) (%) or \(M ± SD\). Fat in diet score of \(≥ 2.5\) means > 30% fat in daily diet; lower Physical Activity Frequency scores indicate greater frequency (range = 1 to 4).

†Analysis of variance (ANOVA). Adjusted for multiplicity using the Ryan-Einot-Gabriel-Welsch Multiple Range Test.

*Values log-transformed based upon multivariable log-normal plots.

§Statistically significant, \(p < 0.05\).
Mean weight (kg)

Baseline | 3-month | 9-month
--- | --- | ---
F+C Weight Loss Maintenance Program (N=49) | 110.1 | 108.3* | 107.6*
Standard Follow-up (N=51) | 102.1 | 100.4* | 101.6
Mean weight (kg)

Baseline 3-month 9-month

Weight in kg

115
110
105
100
95

Weight Loss Program
F+C Weight Loss Maintenance Program (N=49)
Standard Follow-up (N=51)
Mean Systolic Blood Pressure (mmHg)

- **Baseline**
  - F+C Weight Loss Maintenance Program (N=49): 139.4
  - Standard Follow-up (N=51): 132.6

- **3-month**
  - F+C Weight Loss Maintenance Program (N=49): 134*
  - Standard Follow-up (N=51): 126.7*

- **9-month**
  - F+C Weight Loss Maintenance Program (N=49): 131.6*
  - Standard Follow-up (N=51): 126.9*
Mean Diastolic Blood Pressure (mmHg)

F+C Weight Loss Maintenance Program (N=49)

Standard Follow-up (N=51)
Mean Distance (ft) Walked in 6 Minutes

- Baseline
- 3-month
- 9-month

F+C Weight Loss Maintenance Program (N=49)
Standard Follow-up (N=51)
Physical Activity Frequency

Baseline 3-month 9-month

F+C Weight Loss Maintenance Program (N=49)

Standard Follow-up (N=51)
Physical Activity Level

Baseline 3-month 9-month

0.4* 0.3* 0.2 0.1

Change in Physical Activity

F+C Weight Loss Maintenance Program (n=49)
Standard Follow-up (n=51)
Fat in Diet

Fat in Diet Scores

Baseline 3-month 9-month

F+C Weight Loss Maintenance Program (N=49)

Standard Follow-up (N=51)
Weight Loss Maintenance by Community Type
Mean weight (kg) in Grassroots

![Graph showing weight changes over time]

- **Baseline**: F+C Weight Loss Maintenance Program (N=24) - 106 kg
- **3-month**: Standard Follow-up (N=14) - 105.3 kg
- **9-month**: F+C Weight Loss Maintenance Program (N=24) - 109.7 kg

- **F+C Weight Loss Maintenance Program (N=24)**
- **Standard Follow-up (N=14)**
Mean weight (kg) in CHCs

F+C Weight Loss Maintenance Program (N=15)

Standard Follow-up (N=19)
Mean weight (kg) in KOM

- **Baseline**
  - F+C Weight Loss Maintenance Program (N=10): 137.7 kg
  - Standard Follow-up (N=18): 108.8 kg

- **3-month**
  - F+C Weight Loss Maintenance Program (N=10): 132.9 kg
  - Standard Follow-up (N=18): 107.9 kg

- **9-month**
  - F+C Weight Loss Maintenance Program (N=10): 133.1 kg
  - Standard Follow-up (N=18): 107.9 kg
Table 11. % Weight Loss at 3-month and 9-Month Follow-Up by Community Type and Intervention Group

<table>
<thead>
<tr>
<th>Characteristic and Interval</th>
<th>Grassroots (n = 38)</th>
<th>KOM (n = 28)</th>
<th>CHC (n = 34)</th>
<th>Combined Total (N = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fam/Com (n = 24)</td>
<td>Fam/Com (n = 10)</td>
<td>Fam/Com (n = 15)</td>
<td>Fam/Com (n = 49)</td>
</tr>
<tr>
<td></td>
<td>Sd. F/up (n = 14)</td>
<td>Sd. F/up (n = 18)</td>
<td>Sd. F/up (n = 19)</td>
<td>Sd. F/up (n = 51)</td>
</tr>
<tr>
<td>% Weight loss at 3-month f/up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 3% weight loss</td>
<td>29.2% (7)</td>
<td>50.0% (5)</td>
<td>20.0% (3)</td>
<td>30.6% (15)</td>
</tr>
<tr>
<td>&lt; 3% weight loss</td>
<td>70.8% (17)</td>
<td>50.0% (5)</td>
<td>80.0% (12)</td>
<td>69.4% (34)</td>
</tr>
<tr>
<td>% Weight loss at 9-month f/up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 3% weight loss</td>
<td>45.8% (11)</td>
<td>40.0% (4)</td>
<td>66.7% (10)</td>
<td>51.0% (25)</td>
</tr>
<tr>
<td>&lt; 3% weight loss</td>
<td>54.2% (13)</td>
<td>60.0% (6)</td>
<td>33.3% (5)</td>
<td>49.0% (24)</td>
</tr>
</tbody>
</table>

Data shown as % (n). Analysis based on Likelihood Ratio Chi-Square

*p < .05, **p < .01
Results Summary

- Significant weight loss and increased physical functioning were observed in participants in the family plus community focused intervention, but not in the standard follow-up arm.
- Most weight loss (4lbs) and increase in physical functioning (49.9ft) was obtained at the 3-month follow-up.
- There was modest continued weight loss (1.5lbs) and improved physical functioning (27 ft) during the 6-month weight loss maintenance phase.
- A total of 5.5lbs lost and 77 ft farther.
Results Summary

- All participants showed a statistically significant improvement in SBP and DBP from baseline to 3-month and from baseline to 9-month, with most improvements occurring in the first 3-months.

- All participants reported an increase in their frequency of physical activity from baseline to 3-month follow-up, but only those in the F+C group maintained their increase from 3-month to 9-month follow-up.
Results Summary

- All participants reported a statistically significant decrease in their dietary fat intake from baseline to 3-month follow-up and maintained this decrease from 3-month to 9-month follow-up. However, the amount of fat in diet was still above 30%.
These findings demonstrate that a community-based and community-led weight loss maintenance program focusing on the adoption of a healthy lifestyle by involving family and friends and using community resources can be effective.