

# Community Partnerships on Obesity & Diabetes

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# Community-Based Participatory Research

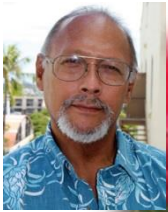
“Collaborative approach to research that involves all partners in the research process and recognizes the unique strengths that each brings. CBPR begins with a research topic of importance to the community with the aim of combining knowledge and action for social change to improve community health and eliminate health disparities.”

W.K. Kellogg Community Scholar's Program (2001)

# Community Engagement



# PILI 'Ohana Project



Partnership for Improving Lifestyle Intervention

Nacapoy, AH, et. al (2008). Partnerships to address obesity disparities in Hawaii: The PILI 'Ohana Project. *Hawai'i Medical Journal*, 67(9), 237-241.

# Determinants of Weight Loss

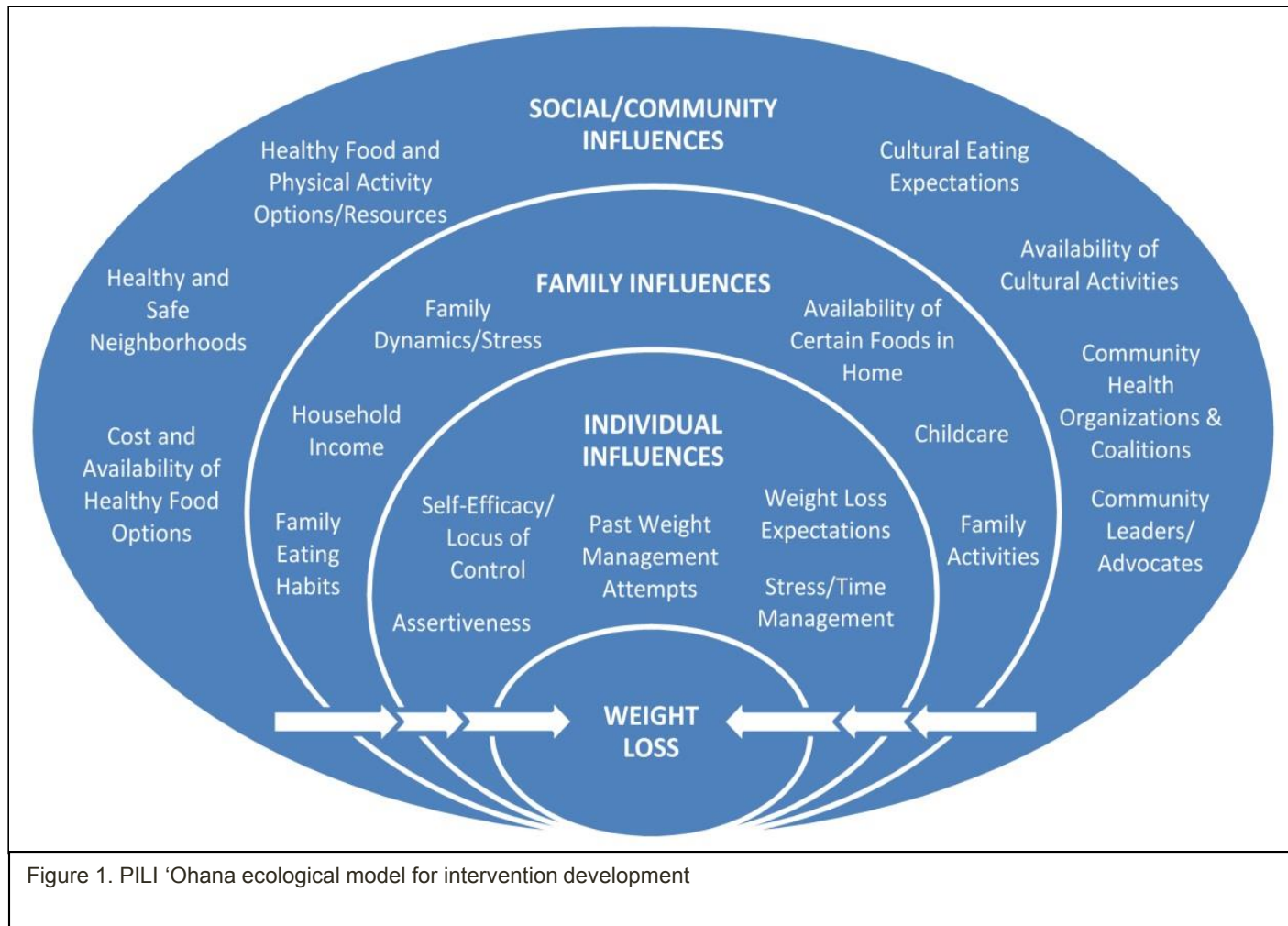


Figure 1. PILI 'Ohana ecological model for intervention development

\*In: Mau, MK et al. (2010). Translating Diabetes Prevention into Native Hawaiian and Pacific Islander Communities: The PILI 'Ohana Pilot Project. *Progress in Community Health Partnerships: Research, Education, and Action*, 4(1), 7-16.

# DPP – Lifestyle Intervention

- 16-session core-curriculum on behavioral self-management strategies for weight loss and physical activity
- Lifestyle coaches
- Frequent contact with participants
- Supervised physical activity sessions
- Maintenance strategies
- Individualized adherence strategies
- Network of training, feedback, and clinical support

# BHM Lifestyle & Habits Program

## 1: Introduction to PII Lifestyle

- 1A: Welcome to the Lifestyle Balance Program
- 12: The Slippery Slope of Lifestyle Change
- 16: Ways to Stay Motivated

## 2: Getting Started

- 1B: Getting Started Being Active
- 3: Being Active: A Way of Life
- 5: Three Ways to Eat Less Fat

## 3: Get Moving

- 1B: Get Started Being Active & Losing Weight
- 4: Be A Fat Detective
- 2: Move Those Muscles

## 4: Make it Fun

- 6: Healthy Eating
- 10: Four Keys To Healthy Eating Out
- 13: Jump Start Your Activity Plan

## 5: Keep it Going

- 8: Tip the Calorie Balance
- **Economics of Healthy Eating (Meal Planning)**

## 6: Taking Charge

- 7: Take Charge of What's Around You
- 14: Make Social Cues Work for You.

## 7: Talking it Out

- 9: Problem Solving
- **Talking with your Doctor**

## 8: Wrapping it Up

- 11: Talk Back To Negative Thoughts
- 15: You Can Manage Stress

# Assessments



- Baseline and 3-months
  - Height (cm)
  - Weight (kg)
  - Systolic/diastolic blood pressure
  - Fat intake - Eating Habits Questionnaire
  - Physical Activity Frequency – Brief Physical Activity Questionnaire
  - Physical Functioning – 6-minute Walk Test



# Participants

- Self-reported Native Hawaiian, Filipino, or other Pacific Islander
- Age 18 years or older
- BMI  $\geq 25$  kg/m<sup>2</sup> or  $\geq 23$  kg/m<sup>2</sup> (Filipino ethnic background)
- Willing and able to follow a weight loss intervention
- Able to identify at least one family, friend or co-worker who would be willing to support the participant

# Intervention Study Results

Change in Clinical and Behavioral Measures Post-PILI 3-Month Weight Loss Program (N= 242)

Measures <sup>a</sup>	Change	p-value
Weight (kg)	<u>-1.7 ± 3.5</u>	<0.0001
Body Mass Index (kg/m <sup>2</sup> )	-0.6 ± 1.3	<0.0001
Systolic Blood Pressure (mmHg)	-2.8 ± 12.5	0.001
Diastolic Blood Pressure (mmHg)	-2.0 ± 8.1	<0.0001
6 minute Walk Test (feet)	74.7 ± 154.7	<0.0001
Dietary Fat Intake Score <sup>b</sup>	-0.2 ± 0.3	<0.0001
Physical Activity Level <sup>c</sup>	-0.6 ± 1.1	<0.0001



a = all measures reported as mean ± SD;

b = dietary fat score ≥ 2.5 indicates greater than 30% of calories from fat.

c = frequency of moderate-vigorous physical activity, range: 1= ≥4 times/wk (more active) to 5=rarely or never (less active).

# PILI@Work

## Change in Clinical and Behavioral Measures Post-PILI 3-Month Weight Loss Program (N=217)

Measures <sup>a</sup>	Change	p-value
Weight (kg)	<u>-1.2 ± 2.6</u>	<0.001
Body Mass Index (kg/m <sup>2</sup> )	-0.5 ± 1.0	<0.001
Systolic Blood Pressure (mmHg)	-2.4 ± 11.2	<0.15
Diastolic Blood Pressure (mmHg)	-2.5 ± 7.2	<0.02
6 minute Walk Test (feet)	113.0 ± 121.1	<0.0001
Dietary Fat Intake Score <sup>b</sup>	-0.2 ± 0.3	<0.01
Physical Activity Level <sup>c</sup>	-0.5 ± 1.0	<0.0001

a = all measures reported as mean ± SD;

b = dietary fat score ≥ 2.5 indicates greater than 30% of calories from fat.

c = frequency of moderate-vigorous physical activity, range: 1= ≥4 times/wk (more active) to 5=rarely or never (less active).



# Partners in Care (PIC)

- 12 weekly, group-based lessons
- Diabetes self-care program
- Based on ADA guidelines
- Basic information about diabetes care
- Emphasizes goals for blood sugar levels, blood pressure, and lipids.



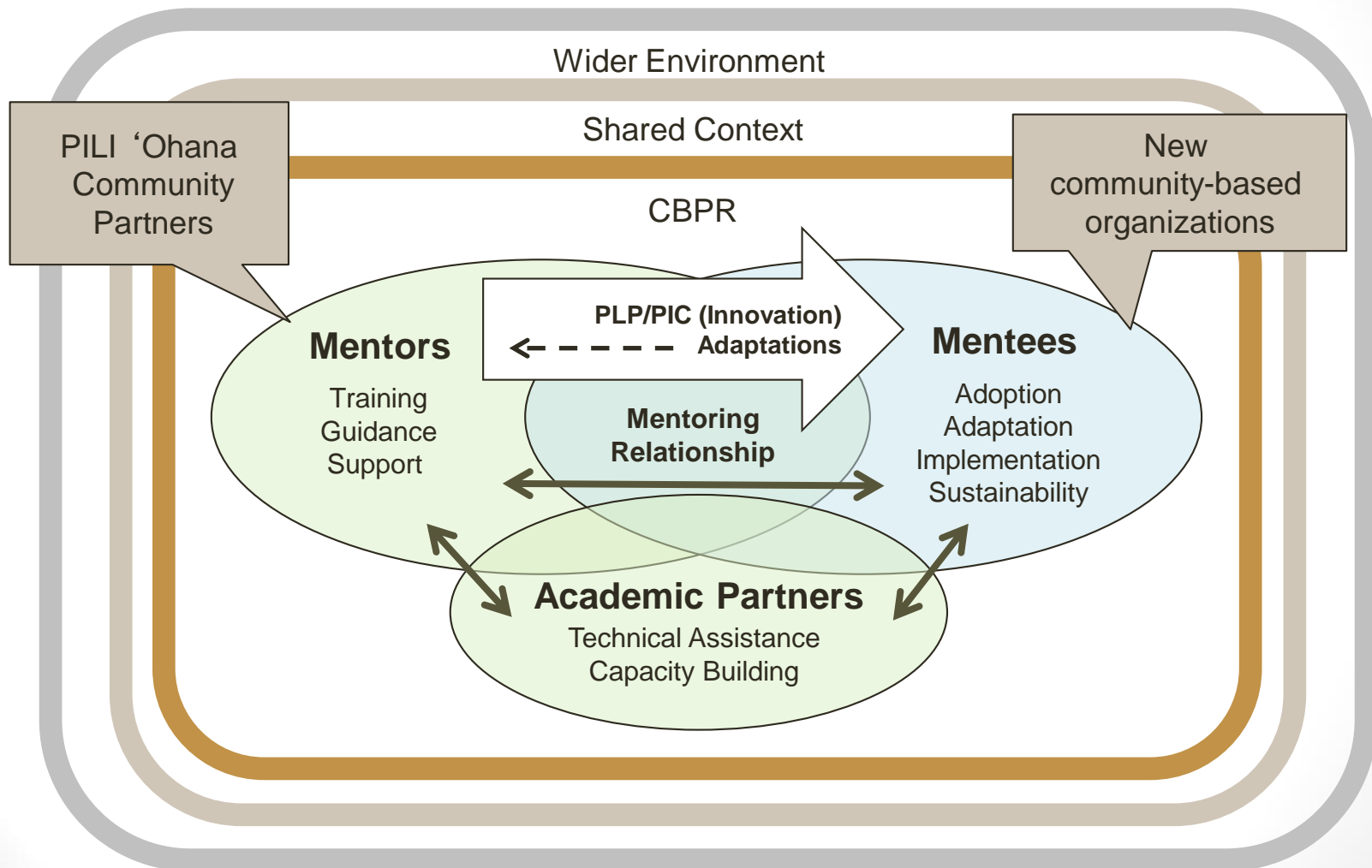
# PIC Results

Measure	Pilot (n=34)	RMATRIX (n=65)	P value
HbA1c			
Baseline	9.7 (2.1)	9.7 (2.1)	<0.01
3 month	8.2 (1.1)	9.0 (2.1)	
Problem Areas in Diabetes Score			
Baseline	31 (31)	35.2 (24.7)	<0.05
3 months	20 (22)	27.1 (22.9)	
Diabetes Care Profile			
Baseline	31(10)	30 (9)	<0.001
3 months	50 (9)	36 (8)	
Summary of Diabetes Self-Care Attitudes			
Baseline	19 (4)	17.5 (4.9)	<0.01
3 months	26 (3)	18.4 (4.4)	

# Lessons Learned

- Facilitators matter
  - Commitment but not education level
  - Active involvement
- One size does not fit all
  - Differences in acculturation-related factors, motivation, and community resources
- Participant engagement
  - Increased through group interaction, games, activities, immediate positive reinforcements
  - May contribute to enhanced weight loss

# Mentoring Model



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