

**Perinatal Depression Screening &
Community-based Interventions
in Hawaii's Healthy Start
Program**

Malama Ho'opili Pono

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Healthy Start Core Services

*Health
Education*

*Outreach
Recruitment &
Retention*

*Consortia for
Community-based
Stakeholders*

*Case Management
for Enhanced Care*

To Reduce Health Disparities

Healthy Start No'ono'o Pono

Apply
Evidence-based
Decisions & Practice

Identify
Gaps in Services

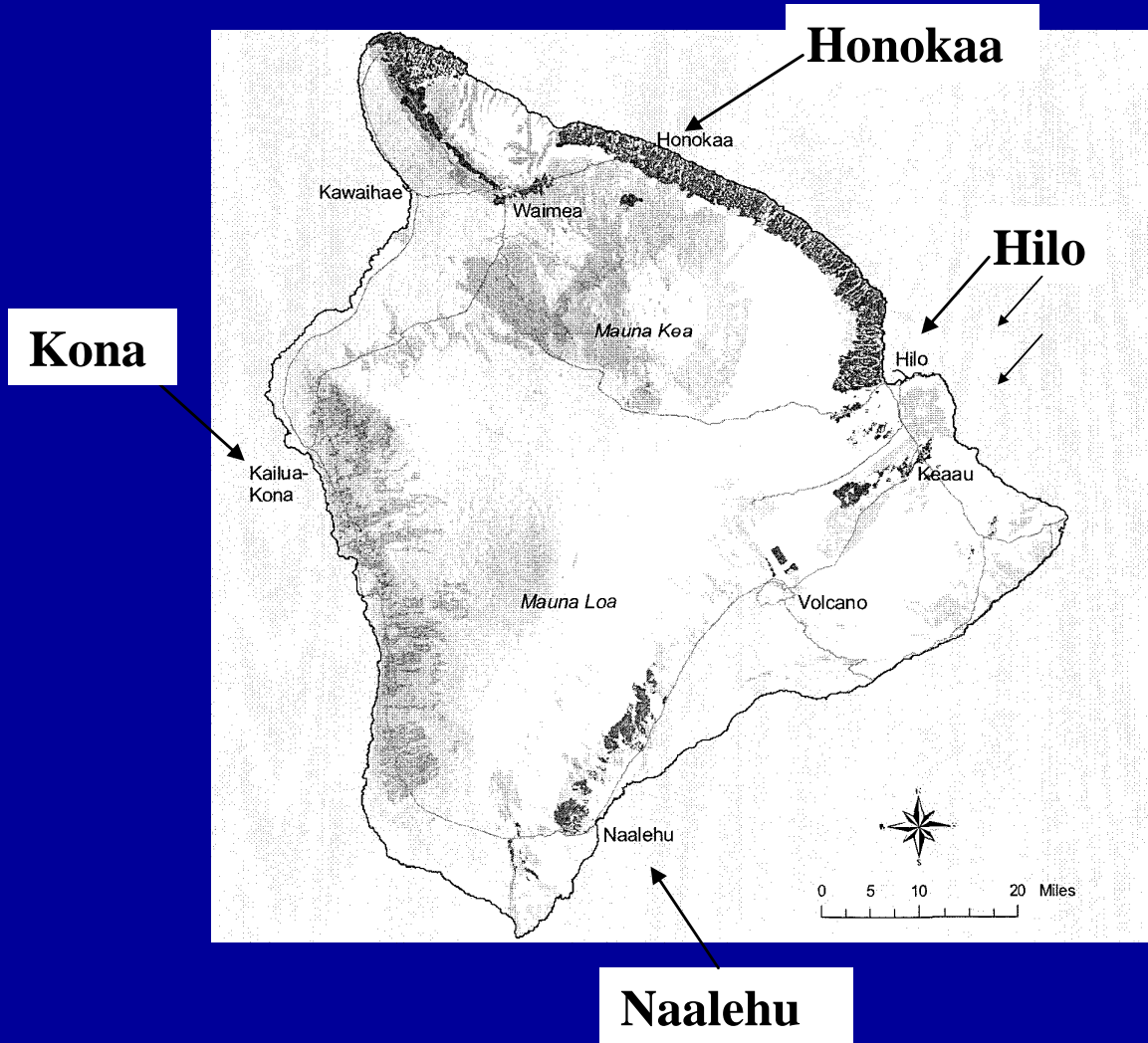
Provide
Community-based
Interventions

Develop
Depression Screening
Protocols

For Hawaii Islanders

Figure 1

Island of Hawaii also known as the “Big Island”



**1. Identify
Gaps in Services
to Resolve *Access Issues***

Needs Assessment

Women's Perspectives

Identify Issues-Concerns

Value/Validate Women's Emotional Distress

Meaning of Depressive Symptoms

Recommendations for Actions

via

FOCUS GROUPS

Local Ways of Access to Care

Know the People....Women's group work

Identify Needs... "Talk-story" Assessments

**Link Targeted Groups... Women are
advocates, navigators & stakeholders**

Partnerships....Communities

**Doing Right Thing (PONO)... People have
"Local Expertise"**

CULTURAL COMPETENT CARE

2. Develop Protocols for *Depression Screening*

A) Depression Measures:

2 Self Report Questionnaires

1. *EPDS – Edinburg Postnatal Depression Scale*.... (10 items) to detect mild depression in postpartum women; used w/ global samples

2. *BDI – Beck Depression Inventory*... (21 items); *assess levels/severity of depression*

2. Protocols for *Depression Screening*

B) Depression Assessment Timeline

Time	Pregnancy	Postpartum
T1	1-14 wks (1 st tri)	
T2	29-32 wks (3 rd tri)	
T3		4 wks (Immediate PP)
T4		4 mo (Early PP)
T5		6 mo (Mid year PP)
T6		12 mo (1 st year PP)
T7		24 mo (2 nd year PP)

3. Apply Evidence-based Decisions & Practice

BDI & EPDS Scores determined

Types of Services for Women Cohorts:

a. Immediate Referrals- BDI- 20+/EPDS 23+

*b. Community-based Interventions –
EPDS 10+ or BDI 13+*

c. Health Education- all participants

Evidence-based practice - Data driven

3. Apply Evidence-based Decisions & Practice

Patient Safety: Immediate Referral via BDI Matrix:

- *Total Score of 20+*
- *Rating of 3 or 4 for items :*
 - # 1...unhappy can't stand it*
 - # 2...future is hopeless*
 - #3...complete failure as a person*
 - #7....hate myself*
 - #9..would kill myself if I had a chance*

4. Provide Community-based Interventions

- **Family Session w/ Prof. Staff**
- **Support Groups w/Outreach Workers**
 - **1:1 w/ Community Women**
 - **Group work w/ men/fathers**

BDI total score of 13+

EPDS total score of 10+

Research Aspects of *Malama Ho'opili Pono*: Study Aims

1. *Determine feasibility & appropriateness of depression screening protocol for local women.*

2. *Detect depressive symptom levels to inform follow-up for mental health or community services.*

3. *Determine efficacy of Malama Ho'opili Pono in reducing number of depressive symptoms among women from baseline of early PG to 1st year PP.*

Data Analytic Decisions

1. BDI scores selected for statistical analysis due to variability in data levels.

2. 80% rule for items completed on self report questionnaires to minimize missing data.

3. Depression variable created:

Defined as Proportion of symptoms = # of BDI items with positive response divided by total # of BDI items responded

(positive response is a rating of 2 to 4 points on item)

Data Analyses

- *Linear Mixed Model with repeated measures applied instead of repeated measures ANOVA (sample variability)*
- *Fixed effects of time tested using F statistic*

3. Post Hoc analyses to detect proportions of BDI significantly reduced over time.

Table 1
Sample Demographics

N = 381

Age	< 17 yr 30.7 % 18-34 yr 64.0 % > 35 yr 5.3 %
Education	Less than high school 36 % High school 60 % Beyond high school 4 %
Occupation	Homemaker 39.1 % Employment out of home 29.4 % Professional 1.6 % Student 25.7 % Total 95.8 % Missing System 4.2 %
Marital Status	Single 65 % Married 35 %
Ethnicity	Mixture 26.5 % Hawaiian 24.9 % Filipino 3.1 % Japanese 1.8 % Polynesian 10.2 % Caucasian 12.9 % Spanish 3.4 % Total 93.4 % Missing System 6.6 %
Parity	Primip: 57.0 % Multip (2-5): 36.5 % Grand Multip (6+): 1.3 %

Study Findings

A. Depression Screening Outcomes

- *Overall range of Depression symptoms High*

BDI total scores above 23% for 90% of sample

*EPDS total mean score of 19.25 for 96% of sample
(cutoff score is 19)*

Study Findings

B. Average Depression Symptom Proportion for Symptom Analysis

- *Highest proportion of symptoms reported during pregnancy (T1, T2) and early to mid PP (T3, T4).*

Descriptive Analysis

Average Proportion of symptoms reported over Time

Time	N	Mean	Std. Deviation
1	335	.3451	.22309
2	284	.2979	.21041
3	197	.2306	.20485
4	151	.2043	.20827
5	149	.1705	.18018
6	110	.1612	.19040
7	51	.1317	.16041
Total	1277	.2555	.21771

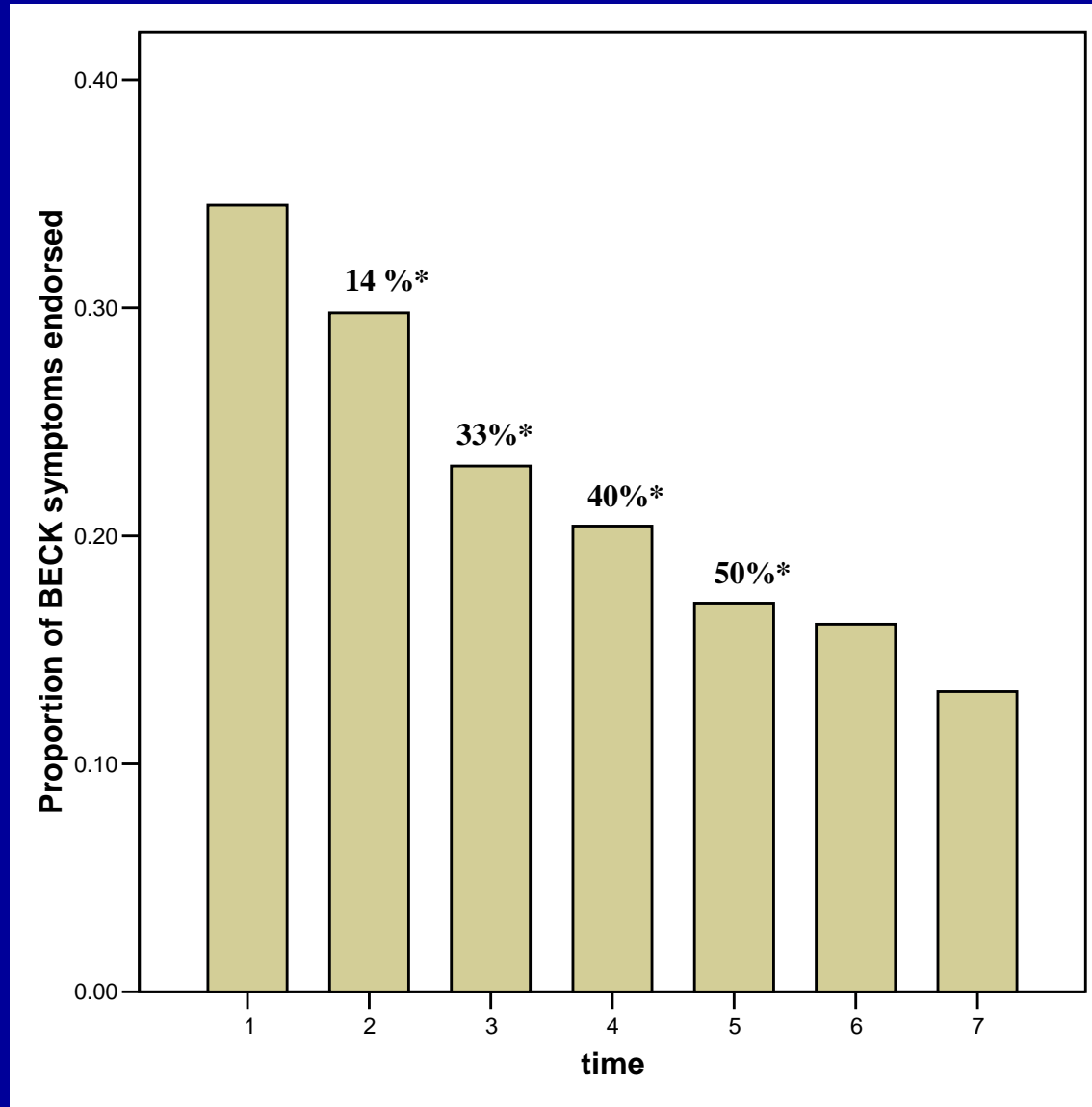
Study Findings

3. *Reduction in Levels of Depressive Symptoms to demonstrate Program Efficacy*

- *Avg # of symptoms endorsed was 7 at T1; reduced to 3 @ T7 program exit*
(On the average 5 out of 21 BDI symptoms endorsed over the full 2 year assessment period)
- *Steady % reduction in # of symptoms over time*

Average proportions of BECK symptoms endorsed out of 21 total symptoms and % reduction in number of symptoms over time .

*** % Reduction in proportions of symptom since Baseline.**



Study Implications

1. Perinatal Depression Screening via Evidence-based Protocols

2. Community based Interventions for culturally diverse women in rural communities

3. Institutionalize Tracking and Monitoring system for Perinatal Depression to promote Women's Health

Lessons Learned

1. Community-based Perinatal Care Services are efficacious in reducing depressive symptoms over time w/ multi-ethnic women.

2. Evidence-based Decisions and Practices are

- Feasible**
- Reasonable**
- Deliver desired Outcomes**

Lessons Learned

3. Staff Development & Training...

to integrate depression screening as standard practice in Perinatal Services.

4. Findings shared w/Women, Families, Community...

to emphasize importance of participation in clinical research studies to reduce disparities.

5. HRSA/NIH Mandate

Cultural Competency

underlies ***Community***-based ***Interventions***

Access to health care services to
reduce health disparities

Research to design – implement – evaluate -test
care services & community participation
for evidence of
Quality Care & Outcomes