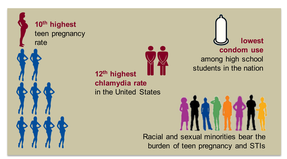
PONO CHOICES: Rigorous Evaluation of a Culturally Responsive Teen Pregnancy and STI Prevention Program for Hawai'i Middle-Schoolers

Ms. Linda Toms Barker, Dr. Yasuyo Abe, IMPAQ International

WHY PONO CHOICES

Youth in Hawai'i had the lowest rate of condom use in the nation in 2011 – only 44% of high school students reported using a condom in their last intercourse, compared to 60% nationwide.

Hawai'i had the tenth highest teen pregnancy rate in 2010 (7% of 15 through 19 year-old females, compared to 6% nationwide) and the 12th highest chlamydia rate.



Western culture-based strategies have failed to reduce educational disparities between Hawaiian students and their peers (Kana'iaupuni, 2007). Students taught through introduction of a Native Hawaiian paradigm, also show an increased desire to learn (Kaiwi, 2006.) No state-approved curriculum explicitly incorporated the unique values and perspectives of the Hawaiian host culture.

Teen pregnancy and STI prevention interventions should start early, with the onset of puberty (Moore and Sugland, 2001).

Responding to the need for effective teen pregnancy and STI prevention curriculum, the University of Hawai'i, in partnership with Planned Parenthood of Hawai'i and ALU LIKE, Inc, developed Pono Choices.

CULTURAL RESPONSIVENESS

The curriculum is culturally responsive and introduces students to Hawaiian cultural terms, practices and concepts that stress positive character development, including making "pono" or "right" choices. It was designed as an intervention that could be implemented in any community setting where youth congregate, targeting middle school youth ages 11 through 13.

Cultural responsiveness is supported through:

- Introduction of Hawaiian cultural values
- An original cultural story
- Cultural practices
- Locally produced videos

Hawaiian cultural values were introduced in each lesson to reinforce lesson content and expanded through an original cultural story. The story served as an access point into the curriculum content from the viewpoint of two adolescents preparing for an important journey. Stories throughout the curriculum connected students to their community and homework engaged their families.

In the Hawaiian culture, the canoe is a metaphor for everything – it's a metaphor for an island, for the earth, for the community, for the classroom. The canoe represents the values of cooperation and shared responsibility and how they come into play when navigating unfamiliar waters. In Pono Choices, the canoe holds the children and keeps them safe while charting the unfamiliar waters of puberty and adulthood.

IMPAQ INTERNATIONAL LLC
Evaluating & Enhancing Public Policies & Programs
info@impaqint.com | @impaqint | (443) 259-5500
www.impaqint.com

INTERVENTION DESPRIPTION

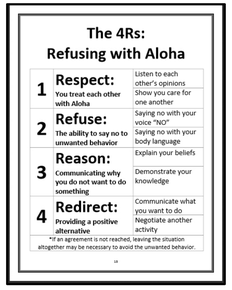
Pono Choices is a culturally responsive teen pregnancy and STI prevention program featuring:

- Medically accurate information
- Character education
- Traditions and practices of the Hawaiian host culture

The curriculum was delivered in group sessions to 7th and 8th grade middle school students as part of their regular health curriculum. It was a 9.5 hour program with 10 modules delivered in sequential order for a total of approximately 600 minutes of instruction. The curriculum focused on:

- Personal goal setting
- Reproductive anatomy
- Reproduction
- Correct condom use
- Other birth control and methods to prevent of sexually transmitted infections
- Understanding healthy relationships
- Developing refusal skills

CURRICULUM MATERIALS



The 4Rs: Refusing with Aloha

1	**Respect:** You treat each other with Aloha	Listen to each other's opinions Show you care for one another
2	**Refuse:** The ability to say no to unwanted behavior	Saying no with your voice "NO" Saying no with your body language
3	**Reason:** Communicating why you do not want to do something	Explain your beliefs Demonstrate your knowledge
4	**Redirect:** Providing a positive alternative	Communicate what you want to do Negotiate another activity

*If an agreement is not reached, leaving the situation altogether may be necessary to avoid the unwanted behavior.

EVALUATION DESIGN

Primary Research Question: What was the impact of Pono Choices, relative to business as usual, on **engagement in unprotected sexual intercourse** among youth as measured one year after baseline?

Secondary Research Question: What was the impact of Pono Choices, relative to business as usual, on the **initiation of sexual activity** among youth as measured one year after baseline?

Additional Outcomes: **Knowledge** of pregnancy and STI prevention; **attitudes** toward healthy sexual behavior, **skills** in managing relationships and choices, and **intentions** to engage in safe-sex behavior.

For this study, the curriculum was tested in middle schools throughout the state of Hawai'i as part of regular 7th and 8th grade health classes, delivered by regular health teachers. Teachers received a two-day training, all teaching materials, and ongoing observation, feedback and coaching by the implementation team.

Counterfactual: Business-as-usual sexual health instruction in regular 7th and 8th grade health classes.

School Sample: 36 middle schools recruited and randomly assigned

- 2 schools dropped out before implementation
- 34 schools participated in the study

Student Sample: 1,783 students with parent consent

- 97% completed the baseline survey
- 87% completed the 1-year follow-up survey

STUDY SAMPLE	1,783 participating students	
Island	Program Schools	Control Schools
O'ahu	6	5
Big Island	7	7
Maui	2	2
Kaua'i	1	1
Moloka'i	1	1
TOTAL	17	17

RCT: Cluster random assignment design:

- Schools as a unit of random assignment
- Students within schools as unit of analysis

In randomization, schools were blocked by:

- Public vs. non-public school
- O'ahu vs. neighbor islands
- Early vs. late implementation

Schools were randomized prior to the beginning of the school year, but parents were not informed of their school's program vs. control status before deciding whether to consent to students' participation in the study.

Data Collection: The Pono Choices study was implemented across 34 schools over three semesters from Spring 2011-2012 through Spring 2012-2013.

- At each school, up to three cohorts of students participated in the study, with each cohort representing a semester (Spring 2012, Fall 2013, or Spring 2013) over the implementation period.
- Student survey data was collected at baseline prior to the beginning of sexual health curriculum and one year after baseline.
- Student surveys were conducted in group administrations using a consistent script. Individual surveys were administered by mail for students unable to attend group administration.
- Phone and email follow-up were used to maximize the response rate for students unable to attend group survey administration (including students who had changed schools at 1-year follow-up)
- The survey instruments and data collection procedures were identical for treatment and control schools.

Analytic Methods: Program impacts were estimated as:

- Differences in the student outcome measures between program and control groups, one year after baseline data collection
- Intent-to-treat effects including all randomly assigned schools and their study-eligible cohorts of students in the analysis sample, regardless of the level of actual participation in the intervention.

This project was funded by Tier 2 Grant #TPAH000017 from DHHS Office of Adolescent Health.

FINDINGS

No Impact on Engagement in Unsafe Sex: Estimated probability of engaging in unsafe sex:

- 2% for program group
- 2% for control group

No Impact on Initiation of Sexual Activity: Estimated probability of ever having had sex:

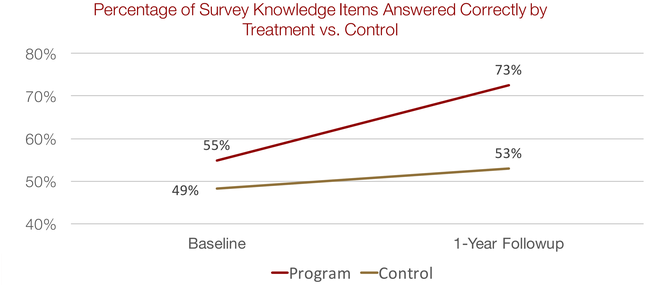
- 10% for program group
- 10% for control group

Positive Impact on Knowledge of TPP/STI Prevention: Percentage of knowledge items
answered correctly at 1-year follow-up:

73% for program group

53% for control group

Statistically significant impact (estimated effect size of 0.700) on students' knowledge of TTP/STI prevention.



Implementation: IMPAQ observed 128 lessons (22% of the total lessons delivered across the three semesters). Pono Choices was delivered with high adherence to the intended intervention model:

- 94% of students completed at least 75% of the curriculum
- Average percentage of content received by each student was 94%
- Teachers completed 98% of planned activities
- Match between teachers' and observers' assessment of activities completed was 98%
- Average rating for quality of delivery was 4.3 (on a scale of 1-5, with 5 being "excellent")
- Average rating for student engagement was 4.6 (on a scale of 1-5, with 5 being "excellent")

CONCLUSIONS

Pono Choices was more effective than current programs in increasing students' knowledge of pregnancy and STI prevention.

Pono Choices students' had the same gains in skills, attitudes and intentions as other programs.

Pono Choices had no detectable impact on sexual behavior - not surprising, giving their young age (12 years old at baseline.)