Health Program Evaluation: What You Need to Know about Planning and Conducting a Program Evaluation

NYU Center for the Study of Asian American Health (CSAAH) in Partnership with the National-Tongan American (NTAS) Society and the Utah Department of Health

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Outline of this Webinar

- Overview of Program Evaluation: What is Program Evaluation? Why is Program Evaluation Important? How do you carry out a Program Evaluation? What resources are needed to conduct a Program Evaluation?

- Case-study: A Physical Activity Intervention for Pacific Islanders in Utah

- Q & A
About me…

Shijian Li, PhD

Postdoctoral Research Scientist at The Center for the Study of Asian American Health (CSAAH)

- I completed my Ph.D. in Social Work and Political Science, May 2010 from the University of Michigan, Ann Arbor. With an interdisciplinary background in political science, social work and public health, my research interest falls in three broad categories: *social determinants of health* (e.g. *social capital and health*), *social network analysis of inter-organizational collaboration*, and *program evaluation*. I have been trained in both quantitative and qualitative research methods. At CSAAH, I am participating in the evaluation of multiple health intervention projects and training programs.
Outline of this Webinar

- Fundamental Concepts: definition, benefits, timing, etc.

- Evaluation Framework (CDC, 1999)
  - Standards for Effective Evaluation
  - Steps for Program Evaluation
Evaluation: What is it?

1. “…the systematic investigation of the merit, worth, or significance of an ‘object’” --- (Scriven, 1991)

2. “…Systematic application of research procedures to assess the conceptualization, design, implementation and utility of intervention programs” --- (Rossi & Freeman, 1999)

3. “…the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future programming.” --- (Patton, 1997)

“Research seeks to prove, evaluation seeks to improve…” --- M.Q. Patton
Why bother?

- **To gain insight** about a program and its operations – to see where we are going and where we are coming from, and to find out what works and what doesn’t.

- **To improve practice** – to modify or adapt practice to enhance the success of activities.

- **To assess effects** – to see how well we are meeting objectives and goals, how the program benefits the community, and to provide evidence of effectiveness.

- **To build capacity** – increase funding, enhance skills, strengthen accountability.
When to evaluate?

Formative/Process Evaluation
- Planning a NEW program
- Assessing a DEVELOPING program
- Assessing a STABLE, MATURE program

Summative/Outcome Evaluation
- Assessing a COMPLETE program

Tips:
- Program evaluation needs to be pre-planned;
- Program evaluation can be done in each stage of program implementation;
How to evaluate?

Evaluation standards

- **Utility**: Who needs the information? What information do they need?

- **Feasibility**: How much money, time, and effort can we put into evaluation?

- **Propriety**: What steps need to be taken for the evaluation to be ethical?

- **Accuracy**: What design will lead to accurate information?
Step 1: Engage stakeholders

Stakeholders: people or organizations that are invested in the program, are interested in the results of the evaluation, and/or have a stake in what will be done with the results of the evaluation.

Types of stakeholders:

- **Served/Affected**
  - Patients/clients/customers
  - Community members
  - Communities

- **Decision Makers**
  - Partners
  - Funding agencies
  - Coalition members
  - Health commissioner
  - Legislators

- **Service Providers**
  - Program manager
  - Program staff
  - Health service providers
  - Specialist

There are five key variables that are absolutely critical in evaluation use. They are in order of importance: people, people, people, people, and people.” --- Halcolm
Step 2: Describe the Program

- Program Description
  - What problem or need is the program designed to address?
  - What are the goals and objectives?
  - What are the strategies to achieve the goals and objectives?
  - What are the resources and activities?
  - What are the expected effects?

- Describe Program through…
  - Logic Model
Program description through logic models

Logic Models: Graphic representations, or a flow chart, of the relationship between your program’s activities and its intended effects.

Contextual Factors

Generic Template of Logic Model
Step 3: Focus the evaluation design

- Key Question: What questions do you want the evaluation to answer about your program?

- Factors to consider:
  - Users – Who will use the evaluation findings?
  - Uses – What will be done with what’s learned?
  - Purpose – What is the goal of the evaluation?
  - Resource – What resources are available (time, money, expertise, etc.)?
  - Methods – ‘what’ and ‘how’ different questions need different kinds of data?

Tips:
1. Brainstorm with stakeholders on possible evaluation questions;
2. Prioritize evaluation questions -- An evaluation cannot answer all questions for all stakeholders.
Step 4: Gather and analyze the evidence

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
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<tbody>
<tr>
<td>e.g.: attendance sheet; surveys; census; etc.</td>
<td>e.g.: meeting minutes; activity logs; key informants interviews; focus groups; document analysis; observation</td>
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**Advantages:**
- Statistics objective
- Results generalizable
- Efficient and cost effective;

**Disadvantages:**
- Forced choices limit response;
- Wording may bias response;
- Impersonal

**Advantages:**
- Rapport
- Detailed observations, records critical
- Breadth/depth of information

**Disadvantages:**
- Subjective, Evaluator-dependant/bias
- Time consuming
- Expensive

**Mixed Methods:** Allow for the examination of different facets of the same phenomenon; obtain comprehensive information; increase credibility of results.
Step 5: Justify conclusions

- **Interpretation** – *what do findings mean?*
  - Always refer to your evaluation questions.
  - Identify findings that will help answer the evaluation questions.
  - Stakeholders may provide some insight about the findings;

- **Program Standards** – *do the findings meet the standards you and your stakeholders have set?*

- **Judgments** – *program’s worth/significance. May be conflicting based on differing value judgments.*

- **Recommendations** – *actions to consider and claims to be made.*

**Tips:**

1. Be sure to include stakeholders’ info and perspectives;
2. Note the limitations of your design.
Step 6: Ensure use and share lessons learned!

- **Audiences/Stakeholders:**
  - Funders;
  - Program recipients;
  - Policy/decision makers;
  - General public

- **Dissemination**
  - Oral presentation: conference, seminars, workshops, community events (slide show, handouts, video & multi-media, etc.);
  - Written report: full report, executive summary, etc.
  - Dissemination channels:
    - Local, regional, national
    - Press release, newsletter, websites, academic journals, expositions, exhibitions, etc…

**Tips:**
- Information needs
- Tailored format

“If the Goal of Evaluation is to improve a program, then no evaluation is good unless findings are used to make a difference.”
Manage Program Evaluation

1. Human Subjects protection
2. Timeline
3. Responsibility
4. Budget

1. Engage Stakeholders

2. Describe the program

3. Focus the evaluation design

- Problems
- Goals
- Objectives
- Strategies
- Inputs
- Outputs

4. Gather Credible Evidence

- Evaluation question
- Users
- Uses
- Purpose
- Resource
- Methods

5. Justify Conclusion

- Identify sources
- Select methods
- Schedule
- Test instruments
- Collect data

6. Ensure use and disseminate findings

- Interpretation
- Program Standards
- Judgments
- Recommendations

- Use for decision-making
- Share findings & lessons

Standard of Evaluation

Utility    Feasibility    Propriety    Accuracy

Source: http://www.uwex.edu/ces/pdande/
Evaluation resources

- Useful Web Resources
  - American Evaluation Association (http://eval.org/)
  - Centers for Disease Control and Prevention: (http://www.cdc.gov/eval/)
  - Penn State Evaluation Tip Sheet (http://extension.psu.edu/evaluation/titles.html)
  - University of Wisconsin: (http://www.uwex.edu/ces/pdande/index.html)
  - W.K. Kellogg Foundation: (http://www.wkkf.org/Publications/evalhdbk/)

- Suggested Readings
Any Questions?

Contact information

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Everyone!!!
Tickle Dad!!!

Strengthening Family Health Program

A Physical Activity Intervention for Pacific Islanders in Utah
Evaluation of a Pilot Project
Presenters:

- **Joaquin Fenollar, MA**
  Joaquin Fenollar, from Valencia, Spain
  Research Assistant at University of Utah and Brigham Young University.
  Instructor at College of Health: Substance Abuse, Healthy Lifestyles, Meditation for Health, Living Resiliently. Developer of Health Programs: Promoting Healthy Behaviors among Families. Healthy and Fit Adults Program. Currently a PhD Candidate in Health Promotion and Education, at Univ. of Utah. Joaquin loves people, a good laugh several times a day, nature, music, and healthy living!

- **Brenda Ralls, PhD**
  Brenda received her PhD from Utah State University in 2000 with an emphasis in demography and health. She became the surveillance and evaluation lead for the Utah Diabetes Prevention and Control Program, Utah Department of Health in 2001.

- **O. Fahina Tavake-Pasi, MS**
  Fahina was born in the Island Kingdom of Tonga, grew up in the San Francisco Bay Area and moved to Utah in 1990. She is currently the Executive Director for the National Tongan American Society, a CBO located in Salt Lake City Utah.
The Problem

Percentage Distribution of Weight Status Among Among Tongan Youth

- Underweight: 2.4%
- Healthy weight: 30.5%
- Obese: 36.6%
- Overweight: 30.5%

NTAS Utah Tongan Youth Survey 2009-2010.

Percentage Distribution of Weight Status Tongan Adults

- Obese: Utah 22.4%
- Moderately overweight: Utah 36.6%
- Morbidly obese: Utah 15.2%
- Not overweight: Utah 21.0%

NTAS Utah Tongan Adult Survey 2008-09, Utah BRFSS 2007

*
The Problem

- High obesity rates of Pacific Islanders
  - Pacific Islander adults more than twice as likely to be obese as Utah adults in general
  - One-third of Pacific Islander youth are obese
  - High death rates from diabetes and stroke

- Existing interventions were not working
Focus Group Told Us Why Interventions Were Not Working

- Importance of the family was universal theme among Pacific Islanders
- Interventions focused on individuals are not sustainable
- Need to involve the whole family
The Process

- Looked for existing family-based interventions
- Selected Strengthening Family Program (substance abuse focus)
- Developed curriculum for pilot program for Strengthening Family Health Program
- Brought in partners
Step 1. Engage Stakeholders

- Obtain buy-in from ministers
- Arranged for location with Hawaiian Cultural Center
- Involved University of Utah graduate students, Utah Department of Health, schools, churches
Step 2. Describe the Program

- Set a goal to increase physical activity in the family through community intervention
- Family-based activities and classes
- Modified existing Strengthening Family Program while preserving program integrity
**Logic Model**

**Logic Model Diagram**

**Obesity and Diabetes Prevention on Polynesian Families through Recreational Activities that include Physical Activity**

**Joaquin Fenollar, University of Utah**

**Input**
- **Resources**
  - STAFF
    - Program Coordinator (.5 FTE)
    - Physical Activity Group Leaders RA’s (Hourly 3h/wk)
    - Center Director (.05 FTE)
  - PARTICIPANTS
    - Hawaiian & Pacific Islanders
    - 50 Families (adults + children)
    - Type I & II diabetes, Overweight and Obesity
  - OTHER
    - Hawaiian Cultural Center
    - HCC Gymnasium

**Program Activities**
- Apply for IRB Consent
- Recruit Polynesian Families
- Enrollment & Selection of Eligible Families by PAR-Q
- Conduct Focus Group for Needs Assessment
- Implement Program: 1 h/wk, sessions for 6 weeks & daily use of pedometers
- Graduation
- Conduct Post-test
- Retrospective Test
- Follow-up Measurement after 2 and 4 Months
- Statistical Analysis SPSS & Data Interpretation
- Report Results to Agencies, Publish in Journals, improve curriculum based on results

**Intermediate Outcomes**
- Families learn fun ways to be physically active
- Families learn to create and apply ways to recreate including physical activity
- Increase levels of physical activity (pedometers), Increase caloric burn
- Increase awareness on healthy behaviors
- Increase quality of family time
- Promote physical activity at the Hawaiian Cultural Center

**Intermediate Goals**
- Increase family relationships: family cohesion and decrease family conflict (Moos FES)
- Increase family physical activity (IPAQ, YRBS, & pedometers) and take conscience of its importance
- Increase family recreational activities as a family (Moos FES)
- Increase family strengths and resilience (IFSR)
  - Promotion of Hawaiian Cultural Center as a place to recreate and to physical activity as a family

**LONG-TERM RESEARCH GOALS:**
1. Improve overall health. As a consequence there will be a decrease on obesity and diabetes risk factors.
2. Adopt a healthy lifestyle that will include regular physical activity and more awareness on healthy behaviors.
3. Improve behaviors on diabetes self-care.
4. Strengthen family relationships by adopting long-term habits (wholesome family recreation) that provide quality time for family.
The Intervention

- Invited Tongans, Samoans, Fijians and Native Hawaiians to participate
- Seven sessions with physical activity for the family
Step 3. Focus the Evaluation Design

- How can we measure increases in physical activity?
- How can we especially measure increases in physical activity at the family level?
- Questions were taken from International Physical Activity Questionnaire (IPAQ) and Youth Risk Behavior Survey and slightly adapted
- Used retrospective survey
Step 4. Gather and Analyze the Evidence

- Collected attendance records
- Used post-program surveys to identify changes in physical activity and family relationships
- Tracked completed questionnaires in Excel

<table>
<thead>
<tr>
<th>SFHP Surveys Received</th>
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<tbody>
<tr>
<td>Site ID</td>
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<tr>
<td>-----------------------</td>
</tr>
<tr>
<td><em>Numbers in paretheses indicate number of surveys actually entered</em></td>
</tr>
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Instruments

- Physical activity readiness assessment
- International Physical Activity Questionnaire
- Modified to include post-test plus retro pre-test
Sample Description

- Average adult age: 47
- Average child age: 13
- Average number of participating children per family: 2.7

<table>
<thead>
<tr>
<th>Gender</th>
<th>Adults vs. Children</th>
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<tbody>
<tr>
<td></td>
<td>Adults</td>
</tr>
<tr>
<td>Male</td>
<td>39.4%</td>
</tr>
<tr>
<td>Female</td>
<td>60.6%</td>
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The Evaluation

- **Formative Evaluation**
  - Recruitment
  - Curriculum

- **Outcome Measures**
  - Changes in physical activity
  - Improvements in family relationships

- **Analyses conducted in SPSS**
  - Descriptive analyses
  - Compared pre- and post-program physical activity
  - One question to assess improvement in family relationships
Evaluation Question

Q. During an average week, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling?

A. Engagement 3+ days a week increased from 11.1% to 20.8% of participants
Evaluation Question

Q. During an average week, on how many days did you do moderate physical activities like carrying light loads, bicycling, and doubles tennis? (Do not include walking)

A. Engagement 3+ days a week increased from 21.4% to 50.0% of participants
Evaluation Question

Q. During an average week, on how many days did you spend walking at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure?

A. Engagement 3+ days a week increased from 41.4% to 60.7% of participants
How often did you do the recommended physical activities with your family at home?

- Not at all: 3.0%
- Rarely: 9.1%
- Daily: 27.3%
- Twice a week: 45.5%
- Once a week: 15.2%
How much do you think this class has improved your family relationships?

- A little: 3.0%
- Somewhat: 6.1%
- Considerably: 24.2%
- A lot: 66.7%
Qualitative Feedback

Follow-up interviews:

Can you tell me what you think was the best part of SFHP?

- Mom: Walking, sharing, getting acquainted
- Dad: Spending time with my family
- Son: To be able to play with my father. I was never close to him so now I can wrestle with my dad and I can tell him my problems.
Pilot Project Results Summary

- Information collected on 33 participants
- All reported high or very high satisfaction
- Physical activity increased
- Family relationships reported to improve
Step 5. Justify Conclusions

- Physical activity can be increased at the family level
- Parents can be role models for children
Step 6. Ensure Use and Lessons Learned

- Used findings to improve future SFHPs
  - More parental involvement
  - Improve sustainability
  - More emphasis on recruitment and retention (e.g., recruiting through schools less successful than recruiting through churches)
  - Use existing opportunities where people are already gathered
  - Presented preliminary results at University of Southern California and CDC annual diabetes conference (DDT)
What worked well

- Program based on an evidence-based family program
- Buy-in and support from local churches
- Support from partners
- Initial meetings with potential participants before the intervention
Lessons Learned

- Recruitment was challenging for graduate students alone. Need community connection.
- Simplify: Survey instruments were complicated.
- Need to improve linking family in database.
- Formative evaluation led to ongoing curriculum and activity changes (e.g., “Tickle Dad” was invented).
Lessons Learned (continued)

- Family play was immensely successful
- Family dance intervention is needed
- Unanticipated result: Intervention encouraged girls to engage in sports
Questions?

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