Phase I Implementation

It Takes a Village: Giving our babies the best chance

Report on efforts to address birth outcomes disparities in Utah's Native Hawaiian/Pacific Islander communities (February 2016 - December 2016)

UTAH DEPARTMENT OF HEALTH
Office of Health Disparities

Utah Office of Health Disparities

Organizational description

Guiding Principle

Health equity is the principle underlying our commitment to reduce and, ultimately, eliminate health disparities by addressing its determinants. Pursuing health equity means striving for the highest possible standard of health for all people and giving special attention to the needs of those communities at greatest risk for health disparities.

Health disparities are differences in health outcomes that are closely linked to economic, socio-cultural, environmental, and geographic disadvantage.

Mission

Our mission is to advance health equity and reduce health disparities in Utah.

Vision

Our vision is for all people to have a fair opportunity at reaching their highest health potential given that health is crucial for well-being, longevity, and economic and social mobility.

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Introduction

After disaggregating data for Asians and Native Hawaiians/Pacific Islanders, the Utah Department of Health (UDOH), Office of Health Disparities (OHD) detected a higher rate of infant mortality among Utah's Native Hawaiian/Pacific Islander (NHPI) communities compared with Utah overall. This health disparity was accompanied by other birth outcomes disparities including higher rates of maternal obesity, gestational diabetes, and unintended pregnancy as well as poor rates of folic acid consumption, continued breastfeeding, birth spacing, and early prenatal care.[1]

Project overview

In spring 2015, OHD in collaboration with the MAHINA (Maternal Health & Infant Advocates) Task Force conducted a pilot project, consisting of six workshops for 23 members of NHPI communities to raise awareness about birth outcomes disparities.

After evaluating the pilot project, OHD created a Native Hawaiian/Pacific Islander (NHPI) Birth Outcomes Advisory Committee to revise and expand the pilot project and create a video production. In spring 2016, the new *It Takes a Village: Giving our babies the best chance* (ITAV) project was implemented in NHPI communities along the Wasatch Front.

Report overview

This report describes the activities and outcomes of the first phase of the ITAV project. Included in the report are updates on activities, outcomes, successes and barriers encountered, and plans for moving forward.

Project Activities

Curriculum development

Between May 2015 and February 2016, OHD and the NHPI Birth Outcomes Advisory Committee worked to revise the pilot curriculum. This included creating an educational video series and dividing the project into six 90-minute workshops: (1) Defining Health, (2) The Unspoken Truth (Birth Outcomes Disparities), (3) It Takes a Family (Preconception Health) and The Earlier, The Better (Prenatal Care), (4) From Day One (Post-Pregnancy Health) and In This Together (Relationships and Support), (5) A Healthy Community, and (6) Moving Forward. The curriculum was created to be both informative and interactive. It included a project overview, project objectives, weekly lesson outlines, and a list of materials and resources needed. The committee also created PowerPoint presentations to assist in the delivery of the curriculum. The project was designed to be delivered by two trained community facilitators to a group of 25 individuals over a six-week period. After final revisions, the committee named the project *It Takes a Village: Giving our babies the best chance*.

Facilitator training

OHD created the facilitator training with the advisory committee between December 2015 and February 2016. The training included an introduction to the project, an outline of facilitator roles and responsibilities, a thorough review of the curriculum, skill building activities, guest presenters, and time for questions. OHD worked with two local community-based organizations to recruit facilitators. Three separate trainings were held between February and June 2016 based on facilitator availability and postponed arrangements with implementation sites. OHD provided ongoing training and support to the facilitators throughout the implementation.

Project implementation

Between March 2016 and August 2016, OHD worked with two local community-based organizations to implement the ITAV project at seven implementation sites across the Wasatch Front. Six of the sites completed the entire project. The first implementation site included a mixed Pacific Islander group in Utah County. The site was discontinued after the third workshop due to lack of attendance, coordinating schedules, and stress on the facilitator. The second implementation site involved a Tongan church in Salt Lake County that successfully met over six weeks and completed the project. The third implementation site comprised the Utah Fijian Association. This group also met over six weeks and successfully completed the project. The fourth implementation site included a Samoan and Tongan congregation in Salt Lake County. The group completed the project over six weeks. The fifth implementation site involved a Zumba group in Salt Lake County. This group completed the project

over six weeks despite low attendance. The sixth implementation site comprised young NHPI adults in Utah County. The group met three times a week for two weeks and successfully completed the project. The seventh implementation site was made up of a community group in Salt Lake County. This group also completed over six weeks despite low attendance.

Facilitator focus group

In October 2016, OHD conducted an hour-long focus group to learn from facilitators' experiences and gain greater insight into how community members received the curriculum. OHD created consent forms, an opening script, and discussion guide for the focus groups. The questions concentrated on improving the training and curriculum to better meet the needs of the target community.

Six-month follow-up survey

In December 2016, OHD created and opened a six-month follow-up survey on Survey Monkey. All participants who provided an email address were sent an email with an introduction, consent, and link to the survey. During the following three weeks, three reminder emails were sent to participants. Facilitators were also contacted and offered incentives to encourage participation.

Project Outcomes

Facilitator training results

Eleven facilitators were trained. OHD conducted a post-training survey to evaluate the facilitator training. Details are provided below.

Facilitator training survey results (N=11)

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The training objectives were clearly defined.	11				
2. Participation and interaction were encouraged.	11				
3. The topics covered were relevant to me.	11				
4. The content was organized and easy to follow.	10	1			
5. The materials distributed were helpful.	10	1			
6. The training experience will be useful to me.	11				

7.	The trainer(s) were knowledgeable about the training topics.	11		
8.	The trainer(s) were well prepared.	11		
9.	The training objectives were met.	11		
10.	The time allotted for the training was sufficient.	11		
11.	The meeting room and facilitates were adequate and comfortable.	10	1	
12.	The lunch/dinner provided was good.	7	2	2 N/A

13.	What did you like most about the training?	• The information shared. • Seeing our community in the video doing the education. • Great data to pass on about our health issues to gain awareness. • I enjoyed the information and the video clips were powerful and touching. • Eye opening and very informative on the aspects of infant mortality. Grateful that there are so many resources available that cater to Pacific Islanders. Loved the training overall. • Learning from others. • Informative and thorough. • Learning things I hadn't known. • Sharing. • The discussion. • I have learned a lot of things that are happening to us Islanders and I can have a chance to help others and myself in the future. • Lots of presentations and discussion from resources and others.
14.	What about the training was most helpful?	• Getting healthy before pregnancy. • Planned pregnancy so you are more prepared to take necessary actions on having a healthy baby. • Data about health disparities. • The health statistics showing the numbers for Pacific Islanders' infant mortality. • Having this as a resource to better my job. • New information. • Videos, comments. • Learning we have a crisis. • To be engaged with the group and comfortable to be open and trusting enough to share our thoughts. • The slide shows or PowerPoint was helpful and all the information to help Pacific Islanders. • The resources provided, especially the Pacific Islanders who are clinicians and experts, are most helpful!
15.	What parts of the training could be improved?	• Maybe the verbiage on the slides to accommodate those we train. • Simplified terms. • Some information was redundant.

	• Breaking the silence that trainees tend to have. • Nothing. Everything was perfect. Loved all the information and presentation. • It was amazing.
16. What additional training would you like to have to prepare you to facilitate the program?	• Nothing for now. My mind is blown away from what I've just learned. • I feel confident in facilitating this much needed training for healthy babies. • More stats. • Just about how important it is to know all the information about the resources you receive so that you can be confident while presenting in front of your group. • I would just like to have the slides and videos to be able to familiarize myself with the curriculum.
17. Other comments:	• Thank you. • Thank you! • Great job! • Loved it! • I love the information and hopefully we can get this word out. Thank you guys. • The trainer was amazing. I appreciated her preparation and effort!

Project implementation survey and follow-up survey results

OHD collected pre- and post-project data through questionnaire surveys distributed during the first and last workshops. Participants who joined after the first workshop completed the pre-questionnaire before joining the group. Overall, 141 participants successfully completed the pre-questionnaire and 87 completed the post-questionnaire. Only those who attended three or more workshops were included in the post-project data.

Out of 81 participants contacted for the six-month follow-up survey, 18 individuals initiated the survey and 11 completed survey with one duplicate response. All groups were represented except the second implementation site. Fifteen out of the 17 who responded had taken the pre-questionnaire and post-questionnaire surveys and the majority of those responding had attended more than four workshops.

A table of total results is included below. Percentages are rounded to the nearest tenth and are subject to rounding errors when totaling to 100 percent. Categories with missing data specify the missing data. Questions not asked in both questionnaires are marked with a hyphen (-). Data on the first group are not included in the report due to discontinuation and some data from the third group are missing because of incorrect data collection for the pre-questionnaire. One duplicate response from the six-month follow-up survey was excluded and all other responses were included when available.

Demographic results

	Pre-questionnaire (n=141)	Post-questionnaire (n=87)	Six-month follow-up (n=17)
Gender			
Male	39.0% (55)	42.5% (37)	35.3% (6)
Female	58.9% (83)	56.3% (49)	64.7% (11)
Other	0.7% (1)	1.4% (1)	0% (0)
Missing	1.4% (2)	0% (0)	0% (0)
Age			
18-29	37.6% (53)	32.2% (28)	58.8% (10)
30-49	32.6% (46)	28.7% (25)	29.4% (5)
50-64	22.0% (31)	27.6% (24)	11.8% (2)
65+	4.3% (6)	10.3% (9)	0% (0)
Missing	3.5% (5)	1.4% (1)	0% (0)
Marital status			
Single	34.0% (48)	25.3% (22)	47.1% (8)
Married	60.3% (85)	69.0% (60)	52.9% (9)
Divorced	2.1% (3)	1.4% (1)	0% (0)
Widowed	0.7% (1)	4.6% (4)	0% (0)
Other	1.4% (2)	0% (0)	0% (0)
Missing	1.4% (2)	0% (0)	0% (0)
Race/ethnicity			
Tongan	43.3% (61)	-	-
Samoan	14.9% (21)	-	-
Fijian	12.1% (17)	-	-
Other Pacific Islander	19.9% (28)	-	-
Other race/ethnicity	8.5% (12)	-	-
Missing	1.4% (2)	-	-
Highest level of education			
Less than high school	10.6% (15)	14.9% (13)	0% (0)

High School diploma/GED	36.2% (51)	36.8% (32)	23.5% (4)
Some college	28.4% (40)	26.4% (23)	41.2% (7)
Associate degree	3.5% (5)	3.4% (3)	17.7% (3)
Bachelor degree	14.2% (20)	9.2% (8)	11.8% (2)
Master/Doctoral degree	2.8% (4)	6.9% (6)	5.9% (1)
Missing	4.3% (6)	2.3% (2)	0% (0)
Annual household income			
Less than $10,000	22.7% (32)	-	-
$10-25,000	21.3% (30)	-	-
$25-50,000	27.0% (38)	-	-
More than $50,000	19.9% (28)	-	-
Missing	9.2% (13)		
Health insurance			
Yes	72.3% (102)	-	-
No	24.8% (35)	-	-
Missing	2.8% (4)	-	-

Birth outcomes results

	Pre-questionnaire (n=141)	Post-questionnaire (n=87)	Six-month follow-up (n=17)
Have you (or your partner) ever been pregnant?			
Yes	50.4% (71)	56.3% (49)	41.2% (7)
No	47.5% (67)	41.4% (36)	58.8% (10)
Missing	2.1% (3)	2.3% (2)	0% (0)
Do you have children?			
Yes	59.6% (84)	69.0% (60)	52.9% (9)
No	40.4% (57)	31.0% (27)	47.1% (8)
If yes? How many?			
N/A	40.4% (57)	31.0% (27)	47.1% (8)
1-2	14.9% (21)	17.2% (15)	11.8% (2)
3-4	29.8% (42)	36.8% (32)	29.4% (5)

5-6	7.8% (11)	9.2% (8)	11.8% (2)
7+	6.4% (9)	5.7% (5)	0% (0)
Missing	0.7% (1)	0% (0)	0% (0)
Have you (or your partner) experienced any of the following? (CHECK ALL THAT APPLY)			
Miscarriage	22.7% (32)	32.2% (28)	17.7% (3)
Stillbirth	0.7% (1)	4.6% (4)	0% (0)
Gestational diabetes	7.8% (11)	12.6% (11)	5.9% (1)
Abortion	0.7% (1)	1.1% (1)	11.8% (2)
Death of infant before 1st birthday	2.8% (4)	5.7% (5)	0% (0)
None of those	70.2% (99)	56.3% (49)	70.6% (12)

Knowledge results

	Pre-questionnaire (n=141)	Post-questionnaire (n=87)	Six-month follow-up (n=17)
Infant mortality refers to:			
Death of a fetus before birth	5.0% (7)	8.0% (7)	11.8% (2)
Death of a baby before his or her first birthday	7.1% (10)	40.2% (35)	29.4% (5)
Death of a toddler (1-3 years of age)	5.0% (7)	4.6% (4)	0% (0)
All of the above	22.0% (31)	44.8% (39)	47.1% (8)
Not sure/Don't know	36.2% (51)	-	-
Missing	24.8% (35)	2.3% (2)	11.8% (2)
According to what you know, circle THE TWO racial/ethnic groups with the highest infant mortality in Utah.			
Pacific Islanders/ Hawaiian Natives	50.4% (71)	98.9% (86)	44.8% (13)
African Americans	14.9% (21)	72.4% (63)	31.0% (9)
Hispanic Latinos	11.3% (16)	5.7% (5)	13.8% (4)
Asians	4.3% (6)	11.5% (10)	0% (0)
American Indians/ Alaska Natives	9.9% (14)	4.6% (4)	3.4% (1)
White Caucasian	10.6% (15)	3.4% (3)	6.9% (2)
Not sure/Don't know	44.0% (62)	-	-

Missing	5.0% (7)	4.6% (4)	6.9% (2)
Prenatal care refers to:			
Health care for babies after birth	2.8% (4)	2.3% (2)	0% (0)
Health care for pregnant women	30.5% (43)	50.6% (44)	52.9% (9)
All of the above	35.5% (50)	43.7% (38)	29.4% (5)
None of the above	2.8% (4)	2.3% (2)	0% (0)
Not sure/Don't know	26.2% (37)	-	-
Missing	2.1% (3)	1.1% (1)	17.6% (3)
When should a woman initiate prenatal care?			
During the second trimester of pregnancy	2.8% (4)	2.3% (2)	0% (0)
During the third trimester of pregnancy	2.1% (3)	2.3% (2)	0% (0)
As soon as she finds out she is pregnant	65.2% (92)	92.0% (80)	82.4% (14)
If everything is normal, a pregnant woman does not need to go to the doctor	0% (0)	1.1% (1)	0% (0)
Not sure/Don't know	27.0% (38)	-	-
Missing	2.8% (4)	2.3% (2)	17.6% (3)
What is preconception health?			
It focuses on men and women taking steps now to protect the health of a baby they might have in the future	12.1% (17)	27.6% (24)	11.8% (2)
It is about getting and staying healthy overall	1.4% (2)	5.7% (5)	0% (0)
It means taking control and choosing healthy habits	1.4% (2)	2.3% (2)	0% (0)
All of the above	24.8% (35)	62.1% (54)	58.8% (10)
Not sure/Don't know	35.5% (50)	-	-
Missing	24.8% (35)	2.3% (2)	29.4% (5)
What are the effects of overweight/obesity on babies?			
Later obesity	5.0% (7)	4.6% (4)	11.8% (2)

Early onset of chronic diseases	6.4% (9)	5.7% (5)	5.9% (1)
Congenital anomalies	1.4% (2)	8.0% (7)	0% (0)
All of above	36.9% (52)	78.2% (68)	52.9% (9)
Not sure/Don't know	27.7% (39)	-	-
Missing	22.7% (32)	1.1% (1)	29.4% (5)
What is folic acid?			
A mineral to prevent anemia	7.8% (11)	4.6% (4)	0% (0)
A vitamin to prevent birth defects	27.7% (39)	62.1% (54)	52.9% (9)
An antibiotic to treat pneumonia	1.4% (2)	1.1% (1)	5.9% (1)
All of the above	11.3% (16)	28.7% (25)	11.8% (2)
Not sure/Don't know	51.8% (73)	-	-
Missing	0% (0)	1.1% (1)	29.4% (5)
Who should take folic acid?			
Children under 5 years of age	0.7% (1)	3.4% (3)	0% (0)
Pregnant women starting the second trimester	12.1% (17)	21.8% (19)	29.4% (5)
Any woman between 18-45 years of age	17.0% (24)	52.9% (46)	35.3% (6)
All of the above	12.8% (18)	18.4% (16)	5.9% (1)
Not sure/Don't know	55.3% (78)	-	-
Missing	2.1% (3)	1.1% (1)	29.4% (5)
After having a baby, a woman has a better chance to have a healthy pregnancy and a healthy baby if she waits ___ months before becoming pregnant again:			
At least three (3) months	9.2% (13)	4.6% (4)	0% (0)
At least six (6) months	12.1% (17)	2.3% (2)	17.6% (3)
At least twelve (12) months	15.6% (22)	9.2% (8)	0% (0)
At least eighteen (18) months	14.9% (21)	81.6% (71)	52.9% (9)
Not sure/Don't know	46.1% (65)	-	-
Missing	2.1% (3)	0% (0)	29.4% (5)
Breast milk:			

Helps to build the defense (immune system) of the baby	24.8% (35)	33.3% (29)	29.4% (5)
Helps mothers to burn calories and lose weight faster	0% (0)	2.3% (2)	0% (0)
All of the above	35.5% (50)	59.8% (52)	41.2% (7)
None of the above	2.8% (4)	1.1% (1)	0% (0)
Not sure/Don't know	14.9% (21)	-	-
Missing	22.0% (31)	1.1% (1)	29.4% (5)

Self-efficacy results

	Pre-questionnaire (n=141)	Post-questionnaire (n=87)	Six-month follow-up (n=17)
Pre- and post-questionnaire: Rate how certain you are that you can commit during the next six months to each of the activities below because you are confident that you can provide simple answers to questions. **Follow-up survey:** After attending these workshops, rate how much you have done each of the activities below over the past six months. Choose the number on the scale below. 0 is "I have not done the activity at all." 50 is "I have done the activity sometimes." 100 is "I have done the activity at every opportunity."			
I will/have encourage(d) women 18-45 years old to take folic acid daily.			
0-20	7.1% (10)	5.7% (5)	5.9% (1)
30-40	2.8% (4)	2.3% (2)	5.9% (1)
50-60	22.7% (32)	8.0% (7)	29.4% (5)
70-80	14.2% (20)	19.5% (17)	5.9% (1)
90-100	24.1% (34)	64.4% (56)	17.6% (3)
Missing	29.1% (41)	0% (0)	35.3% (6)
I will/have encourage(d) pregnant women to go to the doctor as soon as possible.			
0-20	5.7% (8)	5.7% (5)	17.6% (3)
30-40	2.1% (3)	1.1% (1)	0% (0)
50-60	9.9% (14)	3.4% (3)	0% (0)
70-80	11.3% (16)	12.6% (11)	0% (0)
90-100	43.3% (61)	75.9% (66)	47.1% (8)
Missing	27.7% (39)	1.1% (1)	35.3% (6)
I will/have encourage(d) emotional support to pregnant women.			
0-20	5.7% (8)	4.6% (4)	17.6% (3)
30-40	4.3% (6)	1.1% (1)	0% (0)

50-60	2.1% (17)	2.3% (2)	0% (0)
70-80	8.5% (12)	27.6% (24)	11.8% (2)
90-100	41.8% (59)	64.4% (56)	35.3% (6)
Missing	27.7% (39)	0% (0)	35.3% (6)
I will/have talk(ed) to future parents about the effects of overweight/obesity on pregnant women.			
0-20	7.8% (11)	4.6% (4)	23.5% (4)
30-40	4.3% (6)	3.4% (3)	0% (0)
50-60	10.6% (15)	6.9% (6)	11.8% (2)
70-80	14.9% (21)	17.2% (15)	0% (0)
90-100	34.8% (49)	66.7% (58)	29.4% (5)
Missing	27.7% (39)	1.1% (1)	35.3% (6)
I will/have talk(ed) to future parents about the effects of overweight/obesity on babies.			
0-20	8.5% (12)	3.4% (3)	23.5% (4)
30-40	4.3% (6)	3.4% (3)	0% (0)
50-60	9.2% (13)	9.2% (8)	17.6% (3)
70-80	16.3% (23)	21.8% (19)	0% (0)
90-100	34.0% (48)	60.9% (53)	23.5% (4)
Missing	27.7% (39)	0% (0)	35.3% (6)
I will/have talk(ed) to future parents about the benefits of breastfeeding			
0-20	9.2% (13)	4.6% (4)	11.8% (2)
30-40	2.8% (4)	3.4% (3)	0% (0)
50-60	13.5% (19)	4.6% (4)	5.9% (1)
70-80	9.2% (13)	9.2% (8)	11.8% (2)
90-100	37.6% (53)	78.2% (68)	35.3% (6)
Missing	27.7% (39)	0% (0)	35.3% (6)
I will/have talk(ed) to future parents about the benefits of birth spacing.			
0-20	9.2% (13)	5.7% (5)	17.6% (3)
30-40	5.0% (7)	0% (0)	0% (0)
50-60	2.1% (17)	5.7% (5)	5.9% (1)
70-80	14.2% (20)	16.1% (14)	0% (0)
90-100	31.9% (45)	72.4% (63)	41.2% (7)
Missing	27.7% (39)	0% (0)	35.3% (6)

Pre-questionnaire participation results (n=141)

Why are you participating in this program?	
I have personal interest in this topic	32.6% (46)
A family member asked me to do it	14.9% (21)
My pastor asked me to do it	2.8% (4)
Other community leader asked me to do it	15.6% (22)
I do not know why I am attending this program	5.0% (7)
Missing	29.1% (41)

Six-month follow-up survey

If there is anything else you like to add please feel free to share:
We need more of these classes to create an awareness for all other future (not only Polynesian women or mothers) but all

Pre- and post-questionnaire surveys observational analysis

Regarding demographics, the majority of participants were married, female, and younger than age 50. There was a good representation of Tongan individuals, followed by Other Pacific Islander, Samoan, and Fijian. Note that Other Pacific Islander included any participants who might have been a non-listed race/ethnicity or who identified as more than one Pacific Islander race/ethnicity. Most individuals had a high school diploma/GED or some college and the most common annual income ranged between less than $10,000 to $50,000. Almost one fourth were uninsured (24.8%). According to post-questionnaire data, retention rates seemed slightly higher among males, those older than 65, those with less than a high school education, and married individuals. There was a lower number of single individuals and those ages 18-49 who took the post-questionnaire survey; however, this could be highly influenced by the young adult group, which had fewer post-questionnaire surveys.

For birth outcomes, half of the individuals had been pregnant but a majority had children, most with three to four children. Community partners explained that informally adopting children is a common practice in this community. Overall, about one in four participants had experienced a poor birth outcome. The most commonly experienced poor outcome was miscarriage followed by gestational diabetes and infant mortality. More participants in the post-questionnaire survey identified as experiencing a stillbirth and an infant death. This could be due to increased understanding or new

individuals joining the workshops. It appears that participants experiencing gestational diabetes, stillbirth, and infant death were more likely to complete the post-questionnaire survey.

Overall, knowledge improved in every area. It appears that infant mortality was poorly understood in both the pre- and post-questionnaire surveys. Although the percentage of participants who knew the correct definition increased from 7.1% to 40.2%, in the post-questionnaire many (44.8%) thought it referred to any type of death. Only about 50% of participants were aware that Pacific Islander/Native Hawaiians are one of the two groups in Utah experiencing the highest rates of infant mortality; however, by the end 98.9% were aware. The understanding of prenatal care increased from 30.5% to 50.6%; however, 43.7% thought it was for both pregnant women and babies after birth. Understanding when to initiate prenatal care improved from 65.2% to 92.0% and understanding preconception health increased from 24.8% to 62.1%. The effects of overweight/obesity on babies also increased from 36.9% to 78.2%. Participants' understanding of folic acid improved from 27.7% to 62.1% and the concept of who should take folic acid also improved from 17.0% to 52.9%. Knowledge of birth spacing also increased from 14.9% to 81.6%. Participants' knowledge improved in every category; however, there is still some misunderstanding regarding the exact definition of infant mortality, prenatal care, preconception health, folic acid, and who should take folic acid.

In total, participants' self-efficacy improved in all skills. The largest improvements were seen for folic acid, overweight/obesity, breastfeeding, and birth spacing. Participants were most confident in encouraging early prenatal care, breastfeeding, and birth spacing. However, missing data could be affecting these numbers.

Most participants joined the project because of a personal interest. Most others were there because a family member or other community leader asked them. Participants most often listed topics related to general health as what they wanted to learn from the project. However, an overwhelming number of participants wrote that they were attending the workshops in order to be able to help someone or their community. Other responses centered on themes such as having a healthy pregnancy and baby, the general health of kids, how to be supportive, and understanding the high rate of infant mortality and causes. Many wanted to learn about prevention and prepare for the future. There were also many participants who listed specific diseases that they wanted to learn about including diabetes, SIDS, stroke/cancer, etc. Additionally, some participants left the answer blank or wrote "I don't know."

In the post-questionnaire, what participants liked most about the project included themes such as new information and skills, statistics for Pacific Islanders/Native Hawaiians on birth outcomes, the openness of discussion, the venue to get together, the community involvement from the facilitators and participants, the resources, the activities, and the focus on culture. Several participants noted the

importance of the facilitators and videos. A few participants really enjoyed having workshops attended by both men and women together.

Twenty-two participants provided feedback for changing the workshop. Suggestions included reducing the size of the classes, using simpler words in the presentations and clarification in the questionnaires, changing the times and length of the workshops and project, more male involvement, engaging in more small group discussions, providing interpretation, having more assignments in class, and better preparation for the presentation and resources. When asked if they would recommend the project to other Pacific Islanders, 100% of participants said yes.

Six-month follow-up survey observational analysis

The demographics of the follow-up survey were similar to the pre- and post-questionnaires. The majority of participants were female, married, younger than age 50, and had a high school diploma/GED or some college. However, in the follow-up survey there was a higher percentage who were female, ages 18-29, single, and had a high school diploma/GED and some college. Missing categories were other for gender; age 65+; divorce, widowed and other for marital status; and less than high school for highest level of education. This indicates a missing segment of project participants.

For birth outcomes, a majority of individuals had never been pregnant or the partner had never been pregnant, which was higher than the pre- and post-questionnaires. Similar to the pre- and post-questionnaires, the majority of participants had children, most with three to four. The number of participants experiencing a poor birth outcome was the same as the pre-questionnaire and lower than the post-questionnaire. The most commonly experienced poor birth outcomes continued to be miscarriage and gestational diabetes. However, abortion was higher among this group and no individuals with an infant death participated.

Overall, knowledge was similar to the post-questionnaire in almost every area. Regarding infant mortality, the percentage of participants who knew the correct definition decreased; however, the largest raw numbers continued to be all of the above, followed by the correct definition and death of a fetus. This indicates that infant mortality continues to be poorly understood and seems to be associated with the death of a child during pregnancy up to one-year-old with no differentiation. The highest number of participants continued to choose Pacific Islander/Native Hawaiians as one of the two groups in Utah experiencing the highest rates of infant mortality, despite the percentage being lower than the pre- and post-questionnaires. Participants' understanding of prenatal care remained at about 50%, with 29.4% still believing it was for both pregnant women and babies after birth. The understanding of when to initiate prenatal care was 100% correct. Understanding preconception health, the effects of overweight/obesity on babies, folic acid and who should take folic acid remained about the same as the

post-questionnaire. However, there were fewer who chose incorrect answers in all categories. Overall, participants' knowledge seemed to be retained in every category. However, there is still misunderstanding of the definition of infant mortality, prenatal care, preconception health, folic acid, and who should take folic acid, despite the raw numbers indicating improvements when compared to the pre- and post-questionnaires.

In the follow-up survey, the self-efficacy scale was amended to be an action accountability scale, meaning it measured how well participants had engaged in the specific activities. In the follow-up survey, the numbers for actually having encouraged women 18-45 years old to take folic acid daily were lower than the post-questionnaires and more similar to the pre-questionnaire for self-efficacy. Regarding having encouraged pregnant women to go to the doctor as soon as possible, the numbers were more polarized than the pre- and post-questionnaires; however, most participants continued to select the highest numbers on the scale. In the category of having encouraged emotional support for pregnant women, the distribution was similar to the post-questionnaire. In the area of having talked to future parents about the effects of overweight/obesity on pregnant women and on babies, the numbers were much lower when compared with the pre- and post-questionnaires. This might indicate a lack of skills regarding the topic. Finally, in the category of having talked with future parents about the benefits of breastfeeding and birth spacing, both numbers were similar to the post-questionnaire. Overall, the follow-up survey demonstrated a general retention of knowledge and skills from the project.

Facilitator notes

At each implementation site, one facilitator was responsible for taking notes during the workshops. Complete notes were not provided for the first, fifth, and seventh implementation sites.

The qualitative data recorded demonstrated recurring themes that were discussed across groups. Most groups discussed how the information presented was new, interesting, and shocking, especially regarding the higher rates of infant mortality among their community. Nearly all facilitators noted how participants expressed the importance of the information shared. Most of the facilitators' notes described discussions of culture and cultural shifts. Many cultural taboos were discussed including communication and prenatal practices. A topic that continually resurfaced was that the health outcomes experienced were connected to the changes in lifestyle with moving from the islands to the mainland. Participants continually talked about how cultural practices influence their health outcomes and how important it is talk about this in a venue such as the workshops to increase awareness in order to make changes. Many groups repeatedly brought up ways to make changes in the community and the responsibility of participants now that they are informed. Several facilitators noted that participants expressed the need to know more about resources available. Facilitators often wrote about how detailed the discussions were and how many personal experiences were shared. Another topic

regularly discussed was the importance of the husband in the pregnancy. Many male participants shared how much they learned and expressed the need to take a larger role in the pregnancy. Overall, many similarities were recorded by facilitators, which provide possible themes to address better in future workshops.

Facilitator focus group results

Four facilitators, representing four groups participated in the focus group. All of the facilitators commented during the focus group and reached consensus. General themes discussed included the importance of culture and tradition in the workshops and the need for the project and curriculum. The facilitators felt the open venue of the project was beneficial to community members. They agreed that there was too much information shared in too little time and that the length of the project needed to be more flexible. They would like to have the sessions recorded and also have better technical support. When proposing an online version of the curriculum, facilitators were open to the idea, but strongly advised continuing in-person meetings.

Successes and Barriers Encountered

Diversity of groups

One of the greatest successes of the project was the diversity of groups engaged. This diversity included race and ethnicity, gender, age, and faith. In order to reach Utah's diverse Pacific Islander communities, OHD partnered with different community-based and faith-based organizations. For some of these organizations, such as the Utah Fijian Association, this was the first time this organization participated in a project with the Utah Department of Health. OHD was also pleased to have a large number of male participants because lower male involvement was anticipated because many of the topics were considered "female topics." The project was also able to gain the support of many elders in the community and these participants were the most engaged and diligent members of the groups. This was a large success, as many facilitators were concerned about the elders accepting the project. The advisory committee worked hard to make the curriculum friendly to all community members; overall, the diverse participation was evidence of success.

Founded in culture and tradition

Another success of the project was its foundation in culture and tradition. The facilitators and video participants were key to this piece because all of them were members of the community. Community members often commented how pleased they were that it was their people in the video and facilitating the discussion. Many commented how relatable the material discussed was because it was their

community members sharing it. This was demonstrated by strong participation through discussions during the workshops. This also allowed community members to openly analyze their culture and traditions and how they interacted with the knowledge, practices, and skills presented. Most importantly, this venue allowed community members to share personal stories and experiences, while being empowered as a community to address these health disparities.

Delivery method

The delivery method of the project was both a success and barrier. Using community facilitators to deliver the curriculum was a success as described above. In addition, the project served as an important venue allowing community members to openly discuss topics described as taboo. Additionally, combining males and females for the workshops was particularly helpful to opening up communication between couples, increasing understanding between couples, and setting up a model for support between couples in pregnancy. However, the structure of the workshops led to many barriers. Community members had a hard time committing to six weeks and the amount of information covered in this period was overwhelming. The size of the class was also prohibitive to organizing and maintaining a group as well as in-depth, quality discussion.

Content

The content of the curriculum was also both a success and barrier. Many community members were excited about the new information and resources. They were grateful to learn about the health statistics in their community and eager to raise awareness among other community members. Additionally, the curriculum led to increased knowledge and confidence for nearly all behaviors. However, the content of the curriculum was extensive and technical, making it difficult to deliver effectively in a short amount of time. This was not optimal for learning and application.

Language

Another challenge encountered was language. The curriculum was intended for English-speakers only. However, the advisory committee and facilitators explained that it would be important for elders to participate and approve the knowledge and practices for widespread adoption. Furthermore, it was unacceptable to exclude these members of the community from a group activity. As such, many participants did not speak English. This was a challenge when it came to filling out the surveys, watching the videos, viewing the PowerPoint presentations, sharing resources, and group discussion.

Commitment

Finally, another barrier faced by many of the groups involved commitment. Of the 11 facilitators, only five fully implemented the project. These inconsistencies lead to discrepancies in implementation with

collecting data, reporting, and the delivery of the curriculum. Commitment was also a challenge for participants. Only one group was able to recruit 25 people for the project. Additionally, many participants did not attend all or a majority of the workshops, impairing the learning process for and evaluation of the curriculum.

Data limitations

One of the barriers for evaluating the effectiveness of the project involves the reliability of the data. Not all pre-questionnaires were collected in the first session or at the same time. This meant some taking the survey missed the instructions, had already attended the end of the first class, did not take the survey at all, etc. Some of the facilitators did not check to make sure all of the questions were answered, so some questionnaires were incomplete. Additionally, language barriers made it difficult to administer the survey. Similarly, not all post-questionnaires were taken at the same time or at all. The follow-up survey was limited to those who provided an email and the low response rate made it difficult to compare to the pre- and post-questionnaires. Lastly, the surveys were not linked, so OHD was unable analyze individual responses and compare those who did and did not take the post-questionnaire and follow-up survey.

Moving Forward

Curriculum and facilitator training revisions and implementation

OHD is allocating resources and time to revising the curriculum and facilitator training for re-implementation. In August 2016, the NHPI Birth Outcomes Committee began meeting and initiated discussions around revising the curriculum. OHD will continue to work with the NHPI Birth Outcomes Advisory committee, facilitators, and diverse community members to complete a thorough review and revision of the curriculum and facilitator training. Efforts will focus on improving the curriculum delivery methods, literacy level, and activities to address many of the barriers encountered. Concurrently, the facilitator training will be amended to complement the revised curriculum and more effectively improve facilitators' knowledge, skill acquisition, self-efficacy, and project management. OHD will also work to improve evaluation tools to more accurately capture both the quantitative and qualitative data. OHD plans to implement the project again in spring 2017.

Concluding Remarks

OHD is pleased to report the activities, outcomes, successes, barriers, and lessons learned while implementing Phase I of the *It Takes A Village*: *Giving our babies the best chance* project among Utah's Native Hawaiian/Pacific Islander communities. Utah is a pioneer in this effort to identify and raise awareness about the birth outcomes disparities facing this community. Overall, the community has expressed concern, interest, and gratitude regarding the effort and many are eager to address the issue. OHD is committed to working with the NHPI Birth Outcomes Advisory Committee, facilitators, participants, and community members to improve the curriculum to improve awareness, increase knowledge, change behaviors, and eventually reduce these disparities. Ultimately, OHD intends to create a robust curriculum to be shared among all Native Hawaiian/Pacific Islander communities experiencing these disparities.

References

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