



Community-Academic-State Partnership: A Case Study

O. Fahina Tavake-Pasi
National Tongan American Society
Salt Lake City, Utah



OUTLINE

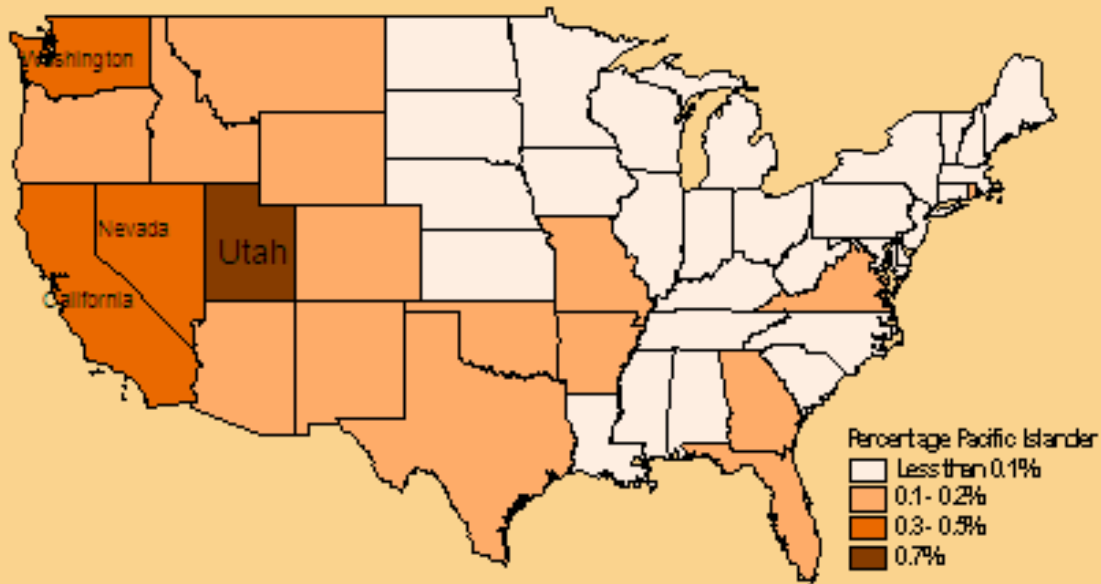
- INTRODUCTION / BACKGROUND
- PROBLEM
- A SOLUTION / DEVELOPMENT
- OUTCOME: A CASE STUDY
- PREVELANCE OF TONGANS IN UTAH
- PREVELANCE OF OBESITY AMONG PACIFIC ISLANDER
- FACTORS OF OBESITY
- OBESITY RISKS AND PROTECTIVE FACTORS IN TONGAN
- PHYSICAL ACTIVITY
- SPECIFIC AIM
- METHODS
- RESULTS
- IMPLICATION
- LIMITATION
- REFERENCES

UTAH'S HOME TONGANS & PACIFIC ISLANDERS IN UTAH

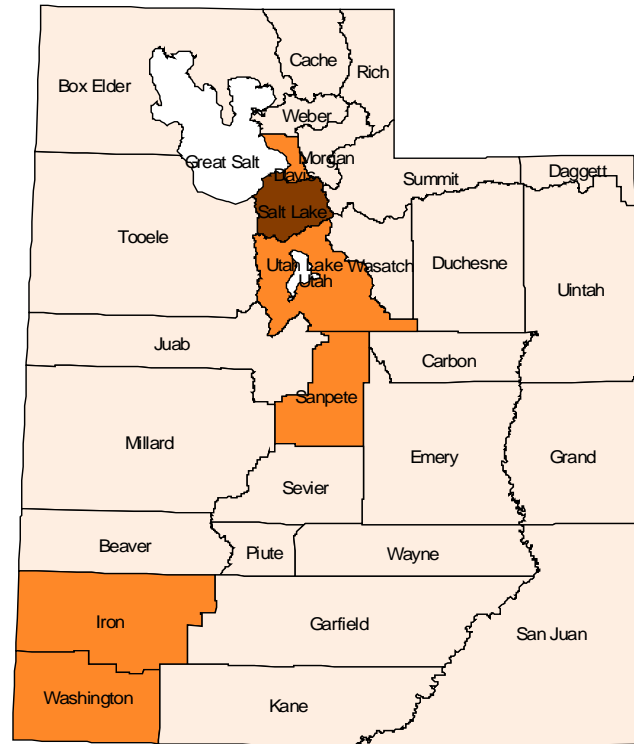


UTAH – HIGHEST PERCENTAGE ON MAINLAND

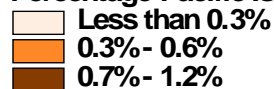
Percentage of Population That Is Pacific Islander in Mainland U.S.



Percentage of Utah Population That Is Pacific Islander by County



Percentage Pacific Islander





National Tongan American Society

- Started in 1994 due to citizenship issues.
- 1996 – 501 c 3
- Volunteers
- Used family funds
- First funding
 - citizenship classes
 - festivals



P.I. Health in Utah

- Highest in Obesity
- Highest in Diabetes
- Highest in Infant Mortality
- Diabetes getting younger

Obesity



* Utah Department of Health (DOH) estimates that PI (with majority being Tongan and Samoan) have highest rate of obesity in Utah... 79.9%

* Two of the top three leading causes of death (strokes, diabetes) for PI in Utah can be linked to being overweight and obese

* Obesity healthcare treatment costs = ~ \$8,500 per year \$2,700 more than for a person with a healthy weight!

OBESITY PREVALENCE

- Prevalence of obesity in Tongans appears to be increasing and occurring at a younger age in adolescents, especially females



HEALTH ISSUES:
NO WHERE TO TURN

Health Access??



Insurance??



Diabetes??

Deaths??

Health Barriers??



Heart Diseases??



LOOKING FOR SOLUTIONS

THE DPCP VISIT: Looking for Brenda!?



Motivation to Partner

- NTAS/CBO: No resources, no expertise, no funding
- Institution/Agencies: Needed to reach underserved population, no connection, cultural and language barriers



Developing the Network

- Utah Health Department: DPCP

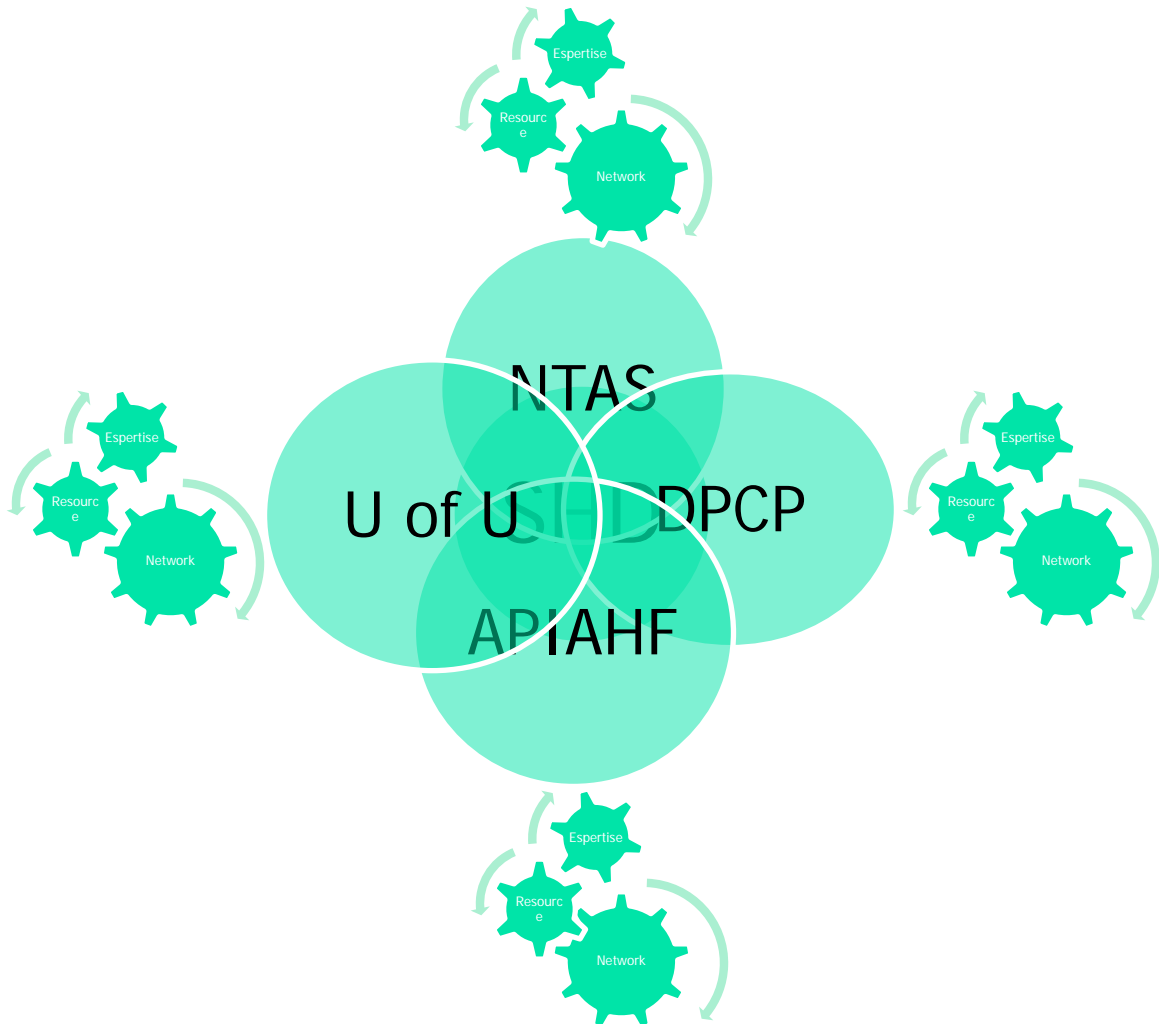
- GRANT: DIABETES TODAY FUNDING
- Immunization
- Multicultural Health
- Chronic Disease
- Maternal and Child Care and others

- University of Utah

- Health Promotion and Education
- Evidence Base Programs – SFHP
- Genetics Learning
- Community Faces of Utah

Partnership Center:

Social Health Determinants





Root Cause of Obesity? Inactivity?

Eating behaviors?

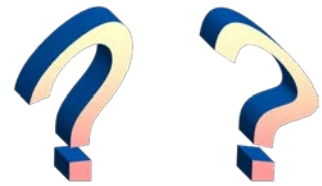
Body Preference?



Meaning of Food?

Beauty?

Cultural Values?



Laziness??



A Case Study

A Triangulation approach:

- 1) U of U: Tim Behrans's Study- the background
- 2) NTAS/DPCP survey- comparison
- 3) U of U Evidence Base Program: SFHP
 - pre/post
 - 3 month follow up



Behren's Study

Variable	Total (N = 38)		Male (n = 13)		Female (n = 25)	
Inactive (min/d)	868.4	145.2	782.5	86.5	912.9	150.8**
Light PA (min/d)	113.2	59.8	141.0	63.4*	98.8	53.4
Moderate PA (min/d)	20.3	19.1	33.5	22.3*	13.4	12.9
Vigorous PA (min/d)	0.3	1.5	0.1	0.2	0.5	1.9
Meeting PA Recommendation	8 (21.1)		6 (46.2)		2 (8.0)	

*p < 0.05; males > females

**p < 0.05; females > males

*** χ^2 < 0.01; males > females



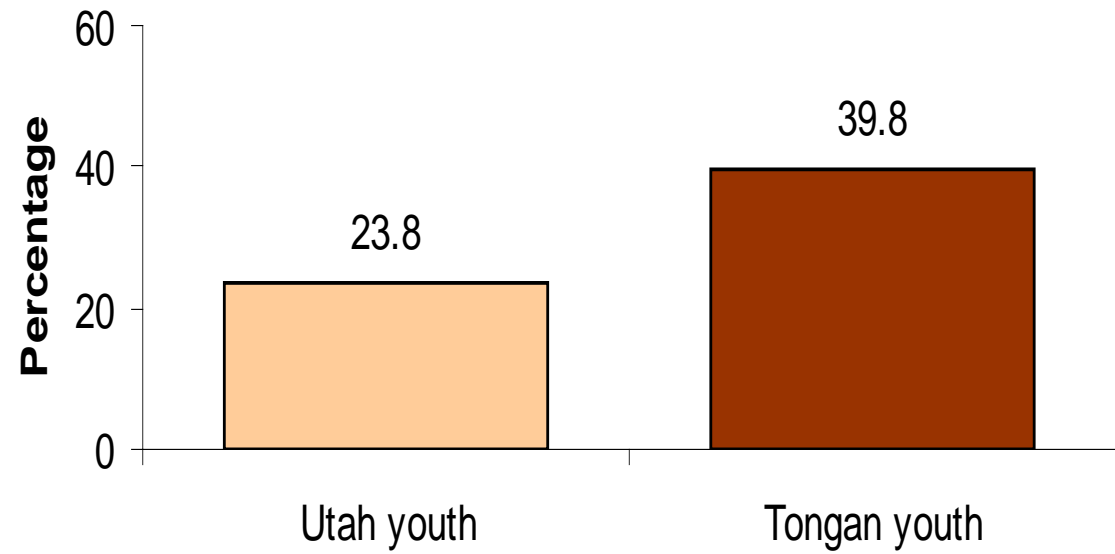
NTAS Survey

- DPCP Technical Assistance



Preliminary Data

Percentage of Youth Who Describe Themselves as Slightly or Very Overweight: Utah vs. Tongan Youth



$p < .05$



Accuracy of Weight Perception

- 67% were overweight or obese
- Among those, only 43.6% described themselves as slightly or very overweight
- 24% of Utah youth described themselves as overweight
- Among those, only 8% were overweight



Obesity

- Low SES
- Genetics
- Diet
- Physical Activity



Physical Activity

Tongan vs. Utahn



What is PHYSICAL ACTIVITY?

- Physical Activity

- "...any bodily movement that results in energy expenditure"

- Occupation

- Transportation

- Leisure-time

- Activities of daily living (i.e., housework, etc.)

- Exercise

- Physical activity using large muscle groups that is planned, structured, repetitive, and purposive.



Objectives of Study

- Recognize the unique health care needs of Pacific Islanders and look at root causes of obesity
 - *-physical activity: Tongan vs. Utah (youth and adults)*
 - *-dietary habits: Tongan vs. Utah (youth and adults)*

STUDY

To increase understanding of Tongan health behaviors related to obesity...





Design

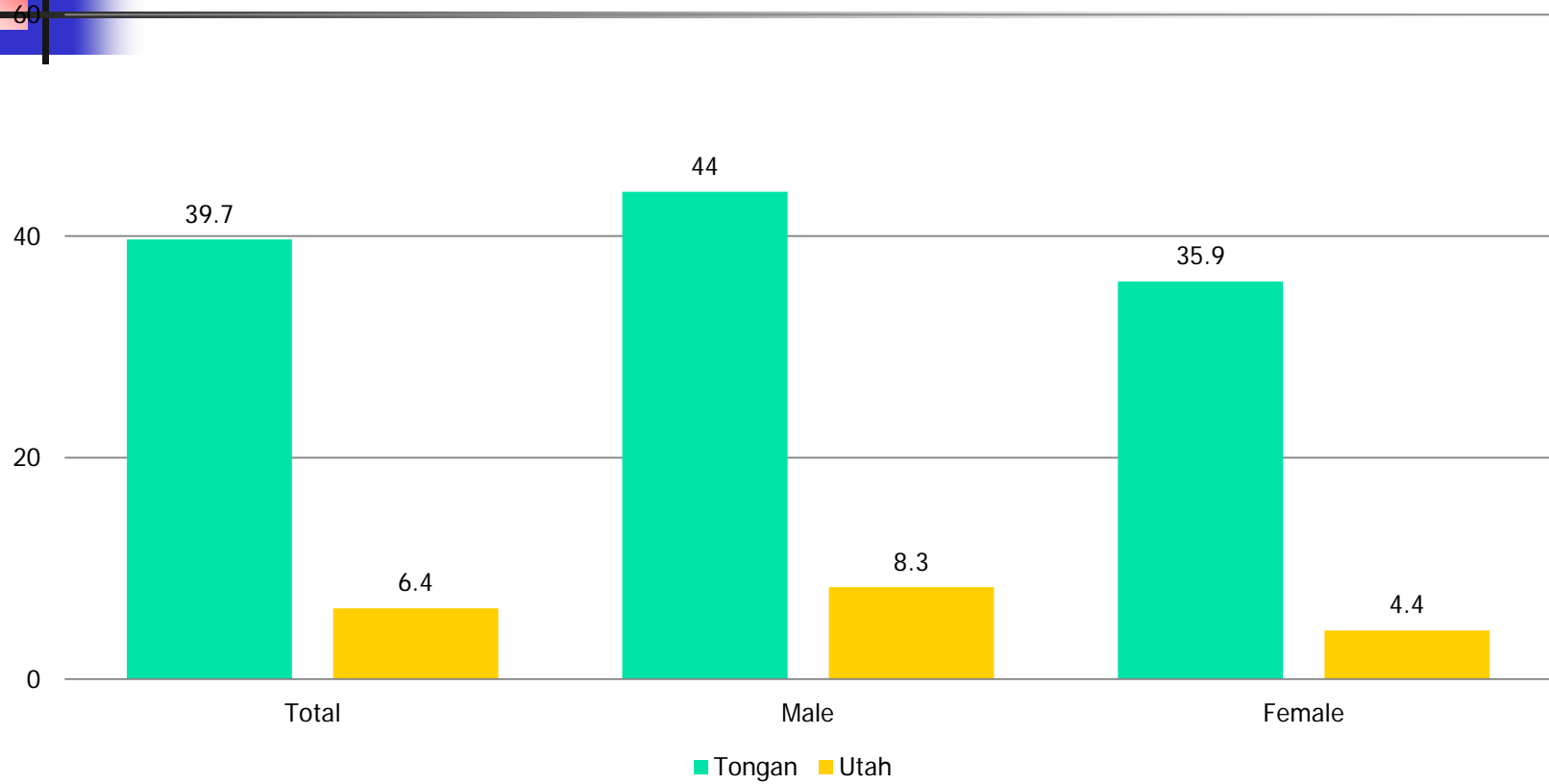
- 1) Very little to no data specifically on this population – collection of data (probably one of the very first data collection of its' type)
- 2) Explorative in nature
- 3) GIVE INSIGHTS TO NEEDS, HABIT AND ENVIRONMENT OF TARGET POPULATION

Data Collection

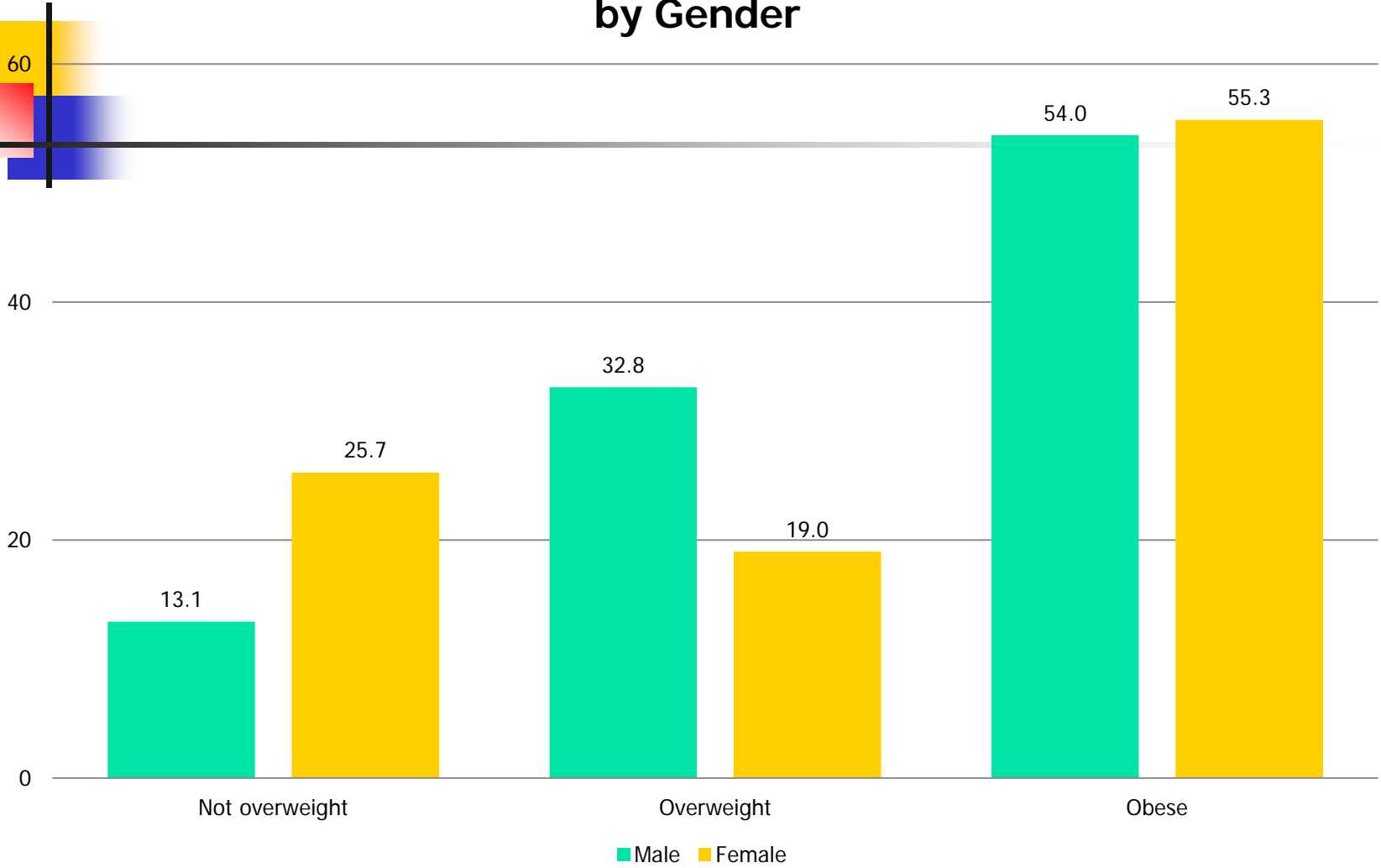
- Churches
- Health Fairs
- Festivals
- Senior Centers
- Consent Forms/IRB Compliant



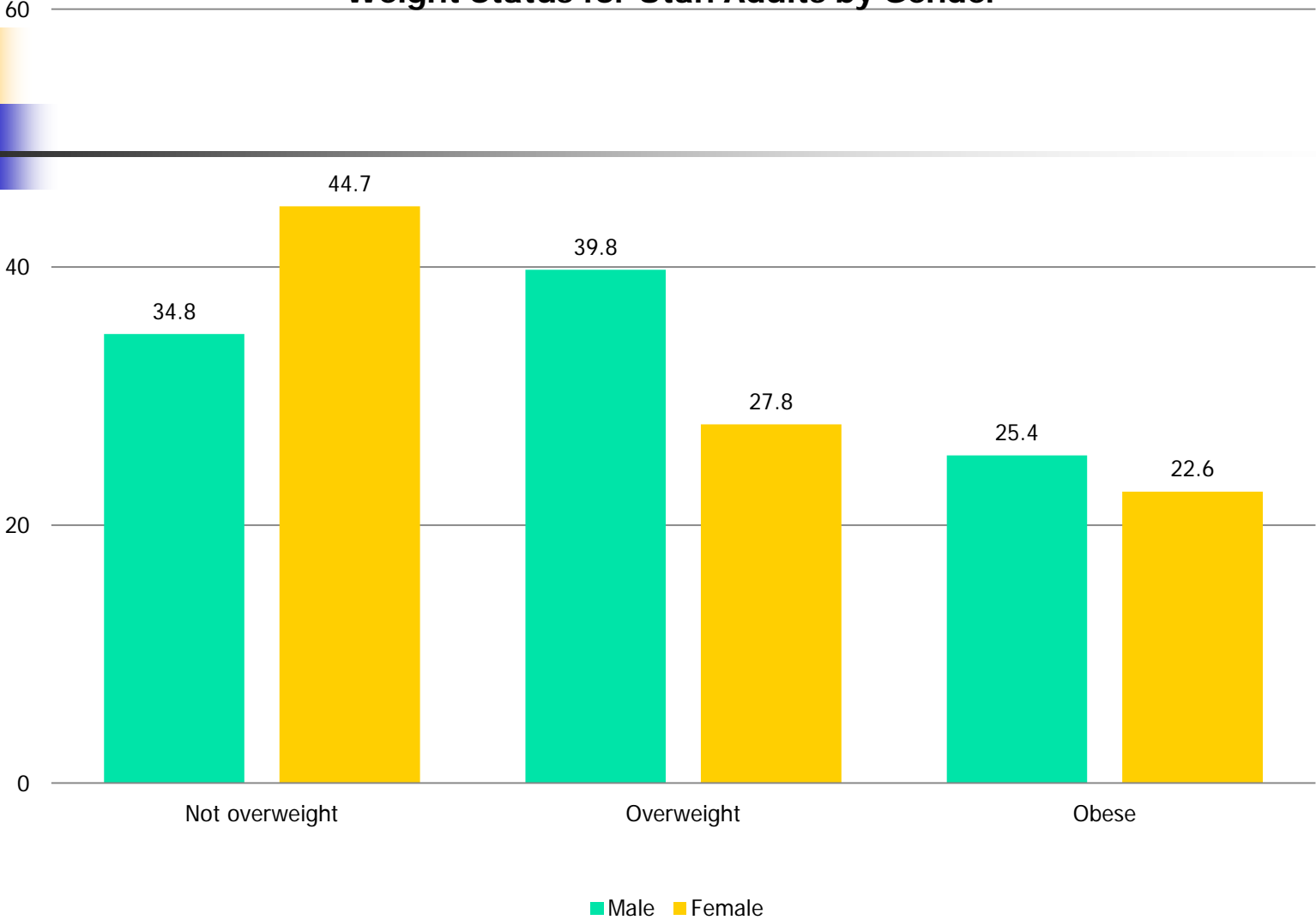
Percentage of Youth Who Are Obese Tongan vs. Utah Youth

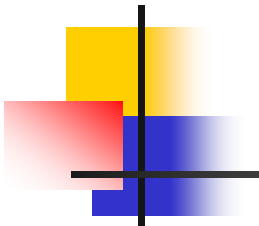


Weight Status for Tongan Adults by Gender

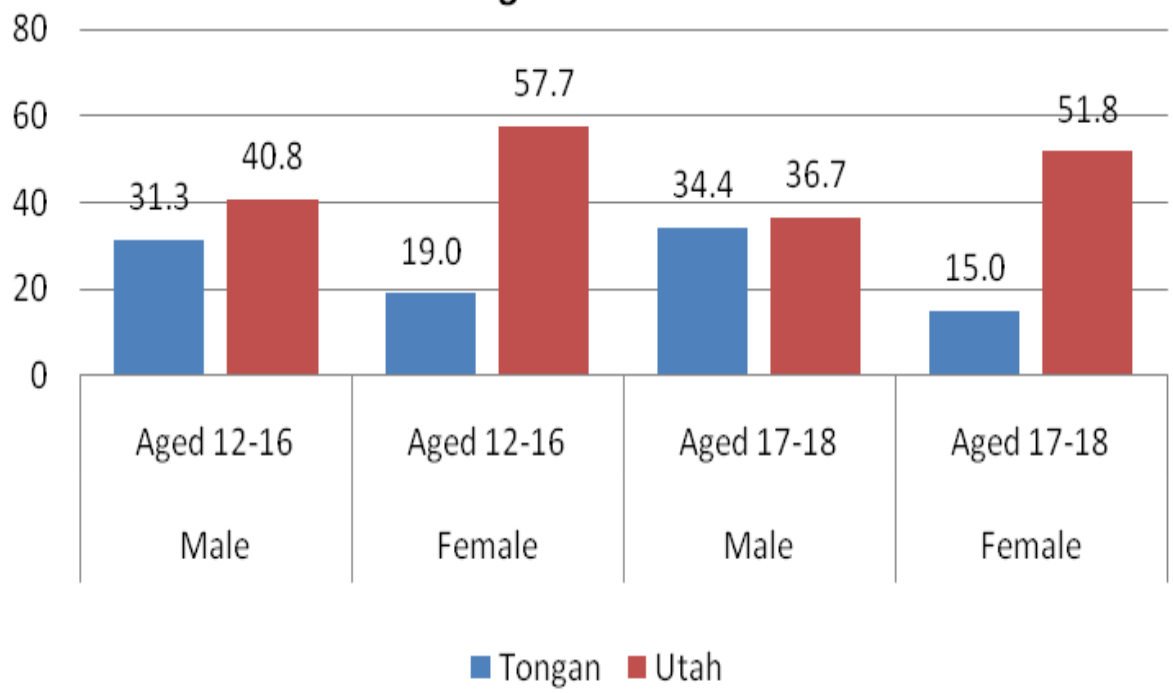


Weight Status for Utah Adults by Gender



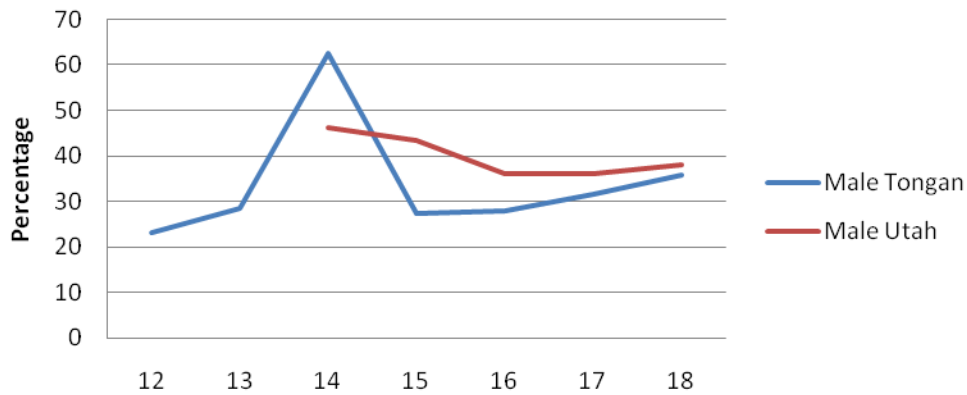


**Percentage of Youth Engaging in 5+ Days of Exercise 60+ Minutes a Week by Age Group and Gender
Tongan vs. Utah Youth**

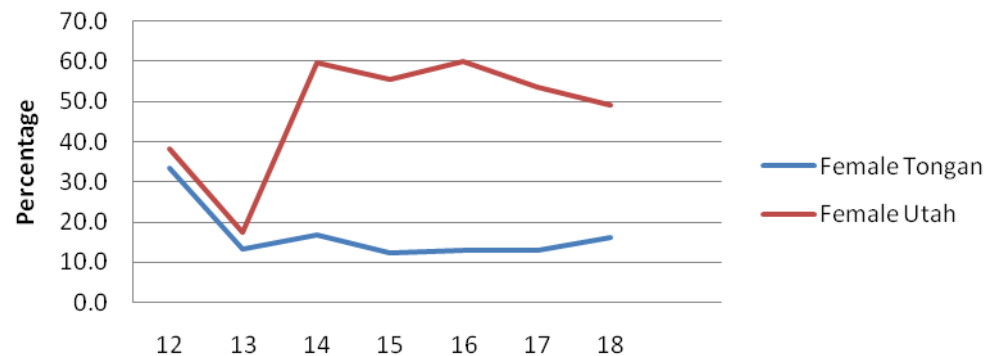


Boys and Girls

Percentage of Males Engaging in 5+ Days of Physical Activity a Week by Age Tongan vs. Utah Youth

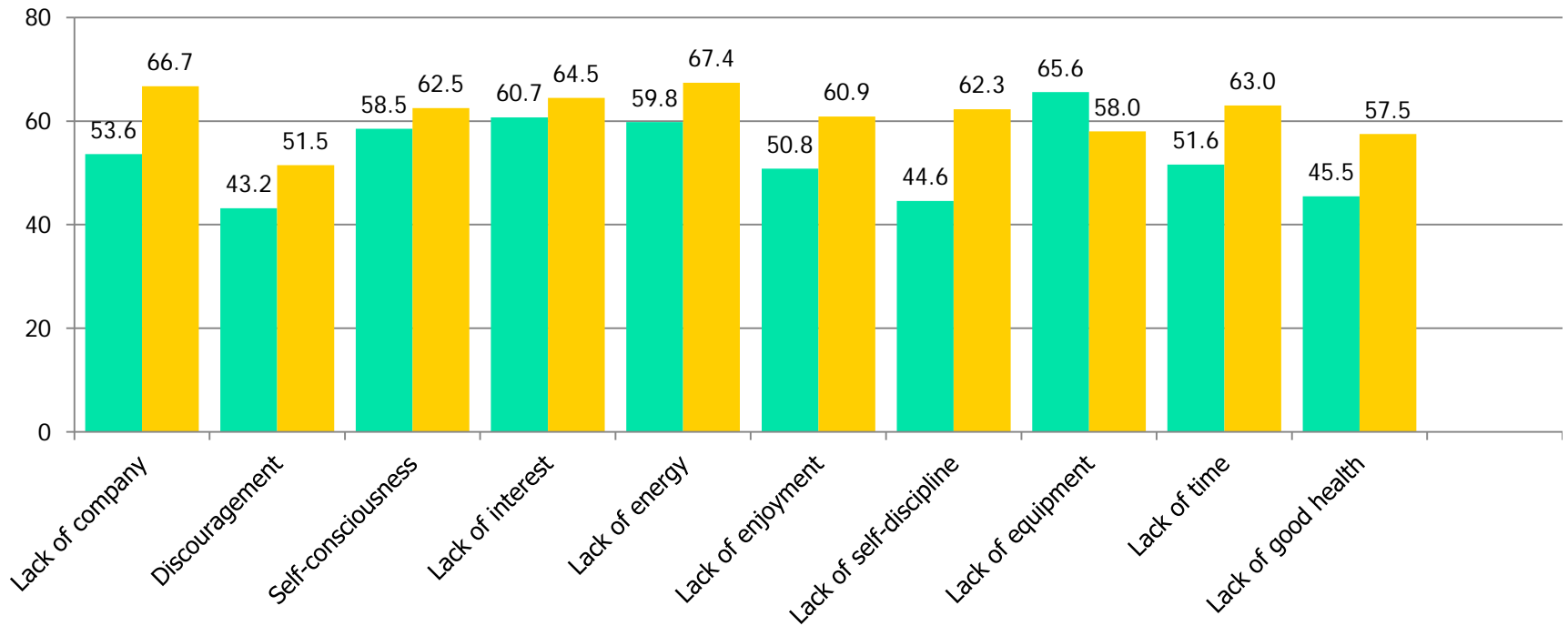


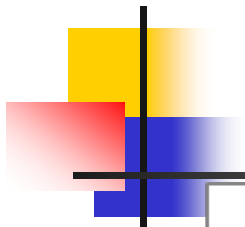
Percentage of Females Engaging in 5+ Days of Physical Activity a Week by Age Tongan vs. Utah Youth



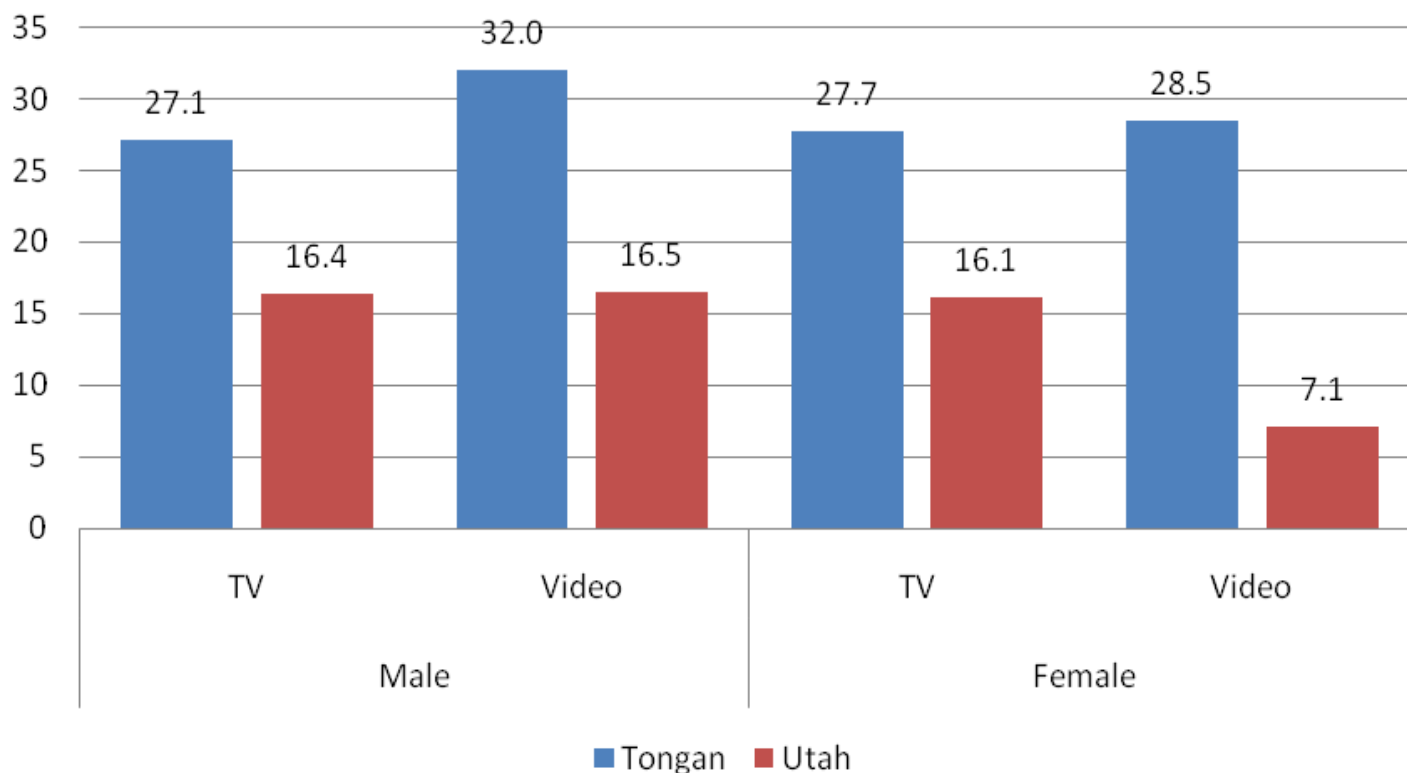
Percentages of Barriers to Engaging in Physical Activity Reported by Pacific Islander Adolescents by Gender

Male Female



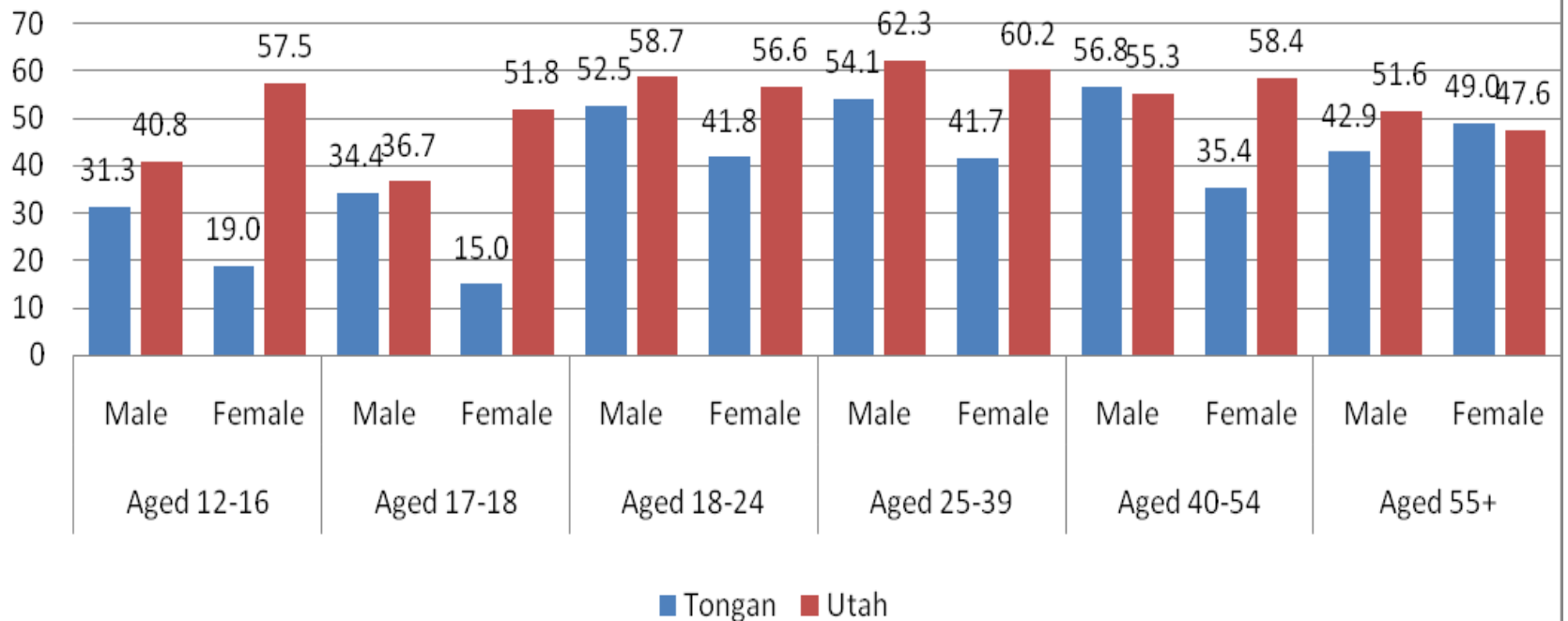


Percentage of Youth Who Engage in 3+ Hours of Screen Time a Day Tongan vs. Utah Youth



Percentages of Youth and Adults Who Engage in Regular Physical Activity

Tongan Youth vs. Utah Youth
Tongan Adults vs. Utah Adults





Summary

- Both adult and young Tongans have higher rates of obesity than Utah counterparts.
- Both also have lower rates of physical activity.



Also....

- Results aligned with focus group findings.
- Confirmed by key informant interviews



Now What??



Physical Inactivity as a Public Health Issue

- PIA and poor diet accounted for 365,000 deaths in the year 2000, second only to smoking as the leading cause of actual death in the U.S.²
- The direct medical costs of PIA are approximately \$76.6 billion³



Strengthening Families Health Program





Strengthening Families Health Program

- Worked with churches to implement 7-wk program
- Included the whole family
- Did not have the typical exercise, but rather family games, some brought in by the families themselves (sock throwing, red-light green-light, tickle/protect family member, balloon popping, etc.)

Men's & Women's Rugby Tournaments

- 8 Women's team*
- 7 Men's team



*New in 2010

- Over 160 women participated AND their children
- 3-4 days/at least 2 hrs exercise



Limitations

- Different definitions of physical activity among youth and adults
- Tongan survey are not generalizable



Conclusion

- Tongans have low rates of physical activity
- Lower rates of physical activity contribute to obesity risk
- This problem is clearly evident in our Tongan youth