



The American Samoa  
Community Cancer Network

## **Men's Health Awareness & Prostate Cancer Screening Clinic Program Evaluation**

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## 1. Addressing Prostate Cancer in American Samoa

In June 2006, the American Samoa Community Cancer Network (ASCCN) hosted the first ever "Men's Health Awareness Clinic" at the Lyndon B. Johnson Tropical Medical Center (LBJ). This program's objectives sought to fulfill two main ASCCN Goals:

- increase community awareness and knowledge of prevalent cancers;
- and, strengthen partnerships with other relevant agencies.

The initial one-day Clinic was so successful, four more were held and over 400 men in American Samoa were screened for prostate cancer in 2006 and 2007.

**This report aims to evaluate the Men's Clinic Program in terms of its planning, implementation and impact<sup>1</sup>.** Table 1 presents an Overview of the Men's Health Awareness Clinics which focused on increasing prostate cancer awareness, knowledge and screening. And Tables 2 and 3 show Calendars of all program activities: clinics, data collection and media. This document is divided into 3 sections: Formative Evaluation, Process Evaluation and Impact Evaluation.

### 1.1 Stages of Program Evaluation

**Formative Evaluation** is part of program planning and occurs before any elements of the program are implemented. It starts with analyzing the health issue and the key target populations to develop relevant and effective program objectives and strategies. And it involves pre-intervention gathering of baseline data to plan for the implementation of strategies, and developing and pre-testing research tools and materials. **Process Evaluation** is a set of activities used to assess how successful program strategies are in fulfilling program objectives. It describes what happens when the program starts and how baseline data was used to tailor activities to the target population. Process evaluation gathers data from the program participants and partners to explain the extent to which the program was implemented as planned. **Impact Evaluation** takes place after the main program elements have been implemented. It seeks to determine the extent to which program objectives were met and how well they fulfilled overall goals. Impact evaluation also involves conducting post-intervention measures to see if the program made a difference in the knowledge, attitudes, and behaviors of individuals and/or how it reshaped their environment and institutions.

*NOTE: Significant findings or statements are highlighted in blue throughout this report.*

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<sup>1</sup> Originally, the Men's Health Clinics aimed to offer both prostate and lung cancer screening, but due to lack of chest x-ray analysis, only lung cancer screening results from Clinic 1 were ever communicated to attendees or made available to the ASCCN. Therefore, this evaluation report focuses primarily on ASCCN prostate cancer awareness, knowledge and screening activities done via the Men's Health Clinics and only briefly mentions lung cancer prevention activities.

**Table 1: OVERVIEW- Men's Health Awareness & Prostate Cancer Screening Clinics, 2006-07**  
American Samoa Community Cancer Network

<b>Network Vision- A cancer-free American Samoa</b>	
<b>Network Mission- Reduce cancer incidence, morbidity and mortality amongst American Samoans.</b>	
<b>Network Goal 1-</b> Facilitate the development and implementation of education and awareness programs in communities to increase cancer awareness among American Samoans.	<b>Network Goal 2-</b> Maintain the ASCCN Infrastructure, Steering, Community Council Memorandum of Agreements with Partnering Agencies
<b>Primary Program Objectives-</b> 1) Target adult males ages 40+ who would not normally visit the hospital for preventive health procedures 2) Increase participant awareness and knowledge of prostate and lung cancer (risks, symptoms, importance of screening) 3) Increase the number of males ages 40+ screened for prostate and lung cancer 4) Provide a comfortable setting for men to discuss personal health issues in general and prostate and lung cancer specifically with health care professionals 5) Identify males in need of further testing for prostate and lung cancer to increase early stage diagnosis.	<b>Secondary Program Objectives-</b> 1) Strengthen collaborations with other cancer education and health outreach groups to provide more comprehensive services and sustain program activities. 2) Utilize media to raise awareness and knowledge levels and promote clinic attendance and screening before and after each clinic.
<b>Indicators of Objective Success-</b> <i>None Determined</i>	<b>Indicators of Objective Success-</b> <i>None Determined</i>
<b>Program Strategies</b>	
<b>Host 5 Men's Health Awareness Clinics in 2006-07.</b>	<b>Produce target group and context appropriate media products and programs.</b>
a) Provide information via lecture format in Samoan. b) Offer free prostate specific antigen (PSA) blood tests to all male attendees to screen for prostate cancer. c) Offer free chest x-rays to all current and past male smokers to screen for lung cancer. d) Offer free basic health vitals evaluation tests (weight, blood pressure, blood sugar) and provide participants with immediate results. e) Develop a system to provide clinic participants timely screening test results and advice. f) Collaborate with relevant agencies to maximize local assets in the promotion and execution of clinic activities.	a) Produce bilingual (Samoan/English) brochure on prostate cancer risks, symptoms, the importance of screening, and the screening process. Obtain and disseminate other print materials on prostate cancer. b) Produce bilingual (Samoan/English) clinic promotion posters and post at the LBJ Medical Center, Government Buildings, retail stores and restaurants. c) Produce and air radio spots and participate in radio interviews on 3 stations highlighting prostate cancer screening at LBJ Hospital. d) Participate in television program interviews on 2 stations (government and private) highlighting prostate cancer screening at LBJ Hospital.

**Table 2: 2006 CALENDAR-** Clinics, Data Collection, & Media Activities (dates)

Month Year	Clinics	Data Collection	Media Campaign Activities
Apr 06	↑ Formative Evaluation ↓	(?) Village Group Interview Nuu'uli (?) Village Group Interview Faleniu (?) Village Group Interview Aua	
May 06		(20) Village Group Interview Mausaga Fou  (27) Village Group Interview Aoloau Village	(26) Malama TV Interview
Jun 06	(24) Clinic 1	(24) Clinic Participant Demographic, Evaluation	(1) Malama TV Interview (12) Presentation to Pulenu'u at OSA (14) KNWJ Radio Interview (15) KJAL Radio Interview (19-23) Samoa News Ad for Clinic 1 (22) KHJ Radio Interview with ASCCN PI
Jul 06	↑ Process Evaluation ↓	(6) Received Clinic 1 PSA and X-ray results, notified patients (11) Group Interview Data Analyzed	
Aug 06			(30) KNWJ Radio Interview with ASCCN PI
Sep 06	(23) Clinic 2	(23) Clinic Participant Demographic, Evaluation	(all month) Radio Spot 2xday on 3 stations (18) Clinic Flyer to all Pulenu'u at OSA (18-22) Samoa News Ad for Clinic #2 (20) KNWJ Interview with ASCCN PI (21) KVZK TV Interview (22) KHJ Radio Interview with ASCCN PI  (27) KNWJ Radio Interview with Clinic 2 participant (27) Samoa News Feature Article
Oct 06	NO ACTIVITIES		
Nov 06		(1) Received Clinic 2 PSA results, notified patients*	
Dec 06			(2) Samoa News Feature Article

\* Unavailability of testing supplies on island at time of Clinic caused delay in PSA results

**Table 3: 2007 CALENDAR- Clinics, Data Collection, & Media Activities**

Jan 07	(20) Clinic 3	(20) Clinic Participant Demographic, Evaluation	(15-19) Samoa News Ad for Clinic 3 (17) KNWJ Radio Interview (18) KSBS Radio Interview (19) KHJ Radio Interview (19) KVZK TV Interview  (23) KNWJ Radio Interview with Clinic 3 participant	
Feb 07	Process Evaluation	(?) Received Clinic #3 PSA Results, Notified Patients	(all month) Radio Spot 2xday on 3 stations (7) KNWJ Radio Interview with ASCCN PI about Clinic Results (13) Malama TV Interview	
Mar 07		(16) Village Group Interview Results Shared at Cancer Symposium, Feedback Gathered		
Apr 07		NO ACTIVITIES		
May 07	(26) Clinic #4	(26) Clinic Participant Demographic, Evaluation	(12) Samoa News Feature Article (23) KNWJ Radio Interview (24) Malama TV Interview (24-28) Samoa News Ad for Clinic #4 (25) KHJ Radio Interview	
Jun 07		(?) Received Clinic #4 PSA Results, Notified Patients		
Jul-Aug 07	Process Evaluation	NO ACTIVITIES		
Sep 07		(29) Clinic #5	(29) Clinic Participant Demographic, Evaluation	(all month) Radio Spot 2xday on 3 Stations (5) KNWJ Radio Interview (19) KNWJ Radio Interview (25) Malama TV Interview (26) KNWJ Radio Interview (26-28) Samoa News Ad for Clinic #5 (27) KSBS Radio Interview (28) KHJ Radio Interview
Oct 07		(?) Received Clinic #5 PSA Results, Notified Patients	(all month) Radio spot 2xday on 3 Stations (30) Malama TV Interview with ASCCN about Clinic Results	
Nov 07- May 08	Impact Evaluation	NO ACTIVITIES		
June 08		(21) Follow-up Clinic Participant Focus Groups and Surveys		



## 2. Formative Evaluation

Formative evaluation took place in the program planning stage. The health issue was identified but it was never fully defined as no evidence of a literature review or program rationale can be found.

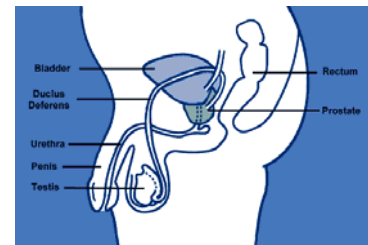
Therefore, what follows is a very brief, retrospective analysis of prostate cancer and the context of American Samoa.

### 2.1 Prostate Cancer

#### 2.1.1 What is prostate cancer?

The prostate is a walnut-sized gland found only in men located below the bladder and in front of the rectum. The urethra runs through the prostate and the gland is vital to the production of sperm. Prostate cancer occurs when malignant cells form due to changes in their DNA. Cells begin growing out of control and spread through the prostate gland resulting in cancer.

Figure 1: Prostate Gland



#### 2.1.2 Prostate Cancer in American Samoa

According to the American Samoa Department of Health, between 1998-2001 cancer was the second leading cause of death in the Territory, claiming 152 lives (16% of total deaths). More men (58%) than women died of cancer and 92% of male cancer deaths occurred past age 45.

Prostate cancer is the most common cancer and the second leading cause of death among men in the United States. In American Samoa, men are most often diagnosed with lung, liver, prostate and stomach cancers, with prostate cancer currently being the second most prevalent<sup>2</sup>.

Table 4: Known Cancer Morbidity and Mortality in American Samoa  
 (Source: LBJ Tropical Medical Center, 2003)

	Lung	Liver	Prostate	Stomach	Breast	Uterus
Cancer Cases by Primary Site (2000-01)	10	-----	10	-----	13	11
Cancer Deaths by Primary Site (1998-2001)	29	18	17	15	-----	-----

#### 2.1.3 Symptoms

The symptoms of prostate cancer include painful, slow or weak urination, frequent and urgent urination, blood in the urine, impotence, loss of bladder control and pain in the pelvis, lower back, hips and spine. However, most cases of early prostate cancer often display no symptoms.

<sup>2</sup> According to ASCCN Principle Investigator and ASCCN prostate cancer brochures. More comprehensive updated prostate cancer morbidity and mortality statistics from LBJ were not available at the time of this report.

#### 2.1.4 Risks and Prevention

It is unknown how DNA is altered in prostate cancer but several factors such as advanced age, family history, and a diet high in fat and low in fruits and vegetables have been implicated. Race is also a factor with prostate cancer rates highest amongst African Americans and lowest amongst Asians and Native Americans. The best known prevention is eating a balanced diet high in fruits, vegetables and whole grains. Yet, in 2007 the United Nations World Health Organization (WHO) found that 87% of adult males ages 45-64 in American Samoa did not consume the recommended daily intake of fruits and vegetables<sup>3</sup>. Aside from diet, yearly prostate cancer screening is advised for all men ages 50 and older. Men with a family history of prostate cancer—grandfathers, fathers or sons with prostate cancer—are encouraged to screen from age 40. Prostate cancer can be treated and cured if found early.

#### 2.1.5 Screening for Prostate Cancer

Prostate cancer is most often diagnosed with a PSA test. It measures the amount of *prostate specific antigen*—a substance made by the prostate gland and found in small amounts in the blood stream. The higher a man's PSA the more likely cancer is present. There is no specific normal or abnormal PSA level. In the past, a PSA below 4.0 ng/ml<sup>4</sup> was considered normal until it was discovered that men were developing cancer with PSAs below this level. Now doctors often consider a PSA score of 2.5 or 3.0 warranting a repeat test to confirm abnormality. Additionally, both general and age-adjusted PSA scales are commonly used in analysis.

Table 5: General PSA Analysis Scale  
 (Source: NCI, 2007)

PSA score	Level of Risk
0 - 2.5	low
2.6 - 10	slightly to moderately elevated
10 - 19.9	moderately elevated
20 +	significant elevated

The ASCCN/LBJ has used an age-adjusted PSA analysis scale to determine risk. But, ultimately risk level and retest recommendation is at the discretion of the doctor.

Table 6: Age-adjusted PSA Analysis Scale  
 (Source: LBJ, 2007)

Age	Expected Value Range
< 50	0.21 - 2.19
50-59	0.27 - 3.42
60-69	0.27 - 6.16
70 +	0.27 - 6.77

One abnormal test is not significant but 2 or more and rising PSAs over time call for further tests. A follow-up PSA is advised when a man is found to have an initial elevated PSA level along with a

<sup>3</sup> American Samoa Non-communicable Disease Risk Factors STEPS Report, WHO, 2007  
<sup>4</sup> PSA test results report the level of PSA in the blood, measured in nanograms per milliliter.

“watchful waiting” approach. If a second PSA is also abnormally high, a digital rectum exam (DRE) is performed. Suspicious findings (enlargement or bumps) from this test often lead to a prostate biopsy being ordered. Prostate cancer treatments include a prostatectomy (removal of prostate) radiation, chemotherapy, hormone therapy, or a combination of treatments. Side effects of prostate cancer treatment include impotence, sterility, urinary incontinence and hormonal changes.

There are reasons for an abnormal PSA reading where no prostate cancer is present including benign prostate enlargement, inflammation (often urinary tract infection), recent sexual activity and possibly complications from other health conditions such as diabetes.

### 2.1.6 Prostate Cancer and Obesity

Research has revealed that being overweight promotes inflammations and prostate cancer is harder to detect in obese men. According to the WHO (2006), 80.4% of Samoans<sup>5</sup> are overweight or obese.<sup>6</sup> This is supported by the United States Centers for Disease Control (CDC) 2002 American Samoa Behavioral Risk Factor Surveillance System (BRFSS) tool which showed the average adult Samoan male weighed 218 pounds<sup>7</sup> and had a body mass index (BMI) of 33. 2007 WHO research shows the rate of obese males in American Samoa is increasing.

**Table 7: Adult Samoan Males - BMI Results**  
 (Sources: CDC BRFSS, 2002, WHO Non-communicable Disease Risk Factors STEPS Report, 2007)

Weight Level	BMI	% Samoan Males 2002	% Samoan Males 2007
Underweight	<18.5	unknown	unknown
Normal Weight	18.5 - 24.9	15%	7%
Overweight	25-29.9	23%	23%
Obese	30 +	62%	70%

Obesity causes health problems that lower the body's ability to fight cancer and react favorably to treatment. Obese men diagnosed with prostate cancer are 20 -35% more likely to die than men of normal weight. Unfavorable prostate cancer survival rates amongst overweight or obese men are due to two main reasons. First, larger men tend to have larger prostate glands so biopsies sample less of the total tissue. Increased BMI also leads to higher prostate volumes resulting in lower (not higher) PSA test results. Larger prostates in men with normal BMI produce more PSA, more often due to cancer. [This possibly calls for a BMI-adjusted PSA analysis scale for interpreting test results which is not currently being used in American Samoa.](#)

### 2.1.7 PSA Test Limitations

<sup>5</sup> This figure is assumed to include Samoans in American Samoa *and* independent Samoa.

<sup>6</sup> American Samoa is home to other Pacific Islanders including Togans and Nuians who are also among eight Pacific Nations ranked in the top 10 countries with the highest percentage of adult population being overweight or obese.

<sup>7</sup> BMI is an internationally used calculation for obesity. BMI = weight in pounds /height in inches<sup>2</sup> x 703. An adult male at 218 pounds would need to be at least 6 feet 6.5 inches tall to have a normal BMI.

PSA testing has greatly facilitated the diagnosis of prostate cancer in the United States, with attributable death rates dropping by as much as 32.5% between 1993-2003. However, conclusive proof is lacking that PSA screening actually reduces morbidity and mortality from prostate cancer. More non-lethal, asymptomatic prostate cancer appears in men over age 50 than does fatal prostate cancer. If prostate cancer goes undetected, men could develop a debilitating and life-threatening disease. But if the cancer remains benign, detection could lead to unnecessary treatment. Discovery of prostate cancer does not always mean saving lives—if it is found late or if it is slow growing—so early screening is recommended. Fortunately, PSA screening seldom detects small, clinically unimportant tumors. And PSAs can also be used to detect prostate cancer treatment success as a predictor of survival.

## 2.2 Identifying Barriers and Target Populations

Having established the need to address prostate cancer in American Samoa, the next step in formative evaluation involved identifying barriers to prevention (or risk factors) and relevant target populations, as shown in Table 8 below. From this list of barriers, came a list of desired behaviors and actions which were developed into primary and secondary program objectives.

No media campaigns or clinical initiatives had ever been implemented for prostate cancer awareness and screening in American Samoa prior to the Men's Health Clinics; therefore both behavioral and environmental barriers needed addressing. ASCCN members assembled the list of barriers based on professional knowledge and experience and some behavioral factors were confirmed via village group interviews (See \* in Table 8). Behavioral barriers called for individual-level strategies aimed at the known at-risk group—men ages 40 and up. Alleviation of environmental or institutional barriers needed the involvement of key agencies that impact individuals.

Table 8: Barrier and Target Population Identification

Health Issue: Prostate Cancer								
Barriers								
Behavioral					Environmental/Institutional			
*low level general cancer awareness and prostate cancer specifically	*low level knowledge of who should screen and available screening procedures	*low number of men receiving early screening for prostate cancer	men less likely to go to the hospital for preventive measures	*lack of confidence in Western medicine over traditional "fofo"	men seldom targeted for health campaigns	lack of baseline data on men's cancer-related knowledge, attitudes and behaviors	no cancer registry to gauge prevalence of hereditary risk	lack of cooperation between health agencies to address prostate cancer
Target Population - Behavioral Barriers					Target Population - Environmental/Institutional Barriers			
men ages 40 and older in American Samoa, primarily Samoans					ASCCN Members Health Agencies Media used by Behavioral target group Other offices in contact with Behavioral target group			

Once the target populations were determined it was vital to uncover their knowledge, attitudes and behaviors (KAB) relevant to cancer. Planning for the initial Men's Health Clinic was partially informed by qualitative data gathered from 76 adults in 5 villages participating in semi-structured group interviews. [Upon revisiting this data in 2008, after the 5 Clinics were held, it is apparent this information was underutilized in the design of the interventions.](#)

The ASCCN was already aware of the resources and roles other agencies and media could lend to the Men's Clinics, so coordination of efforts was needed to address environmental/institutional barriers. ASCCN staff held an initial planning meeting for partners to confirm participation and roles. But, formalized agreements with the program partners were not possible.<sup>8</sup> Despite this, a thorough analysis of partner needs, resources and motivations for participating in Clinic activities before implementation could have been done to mitigate potential conflicts and dwindling support over the course of the program.

### 2.3 Target Group Analysis: Village Group Interviews

April – June 2005, semi-structured group interviews focusing on health behaviors in general and cancer-related knowledge, attitudes and behaviors specifically were conducted with a total of 76 female and male adults in five villages on Tutuila Island: Nu'u'uli, Faleniu, Mapusaga Fou, Aoloau and Aua. It is unknown why these particular villages were chosen and although demographic surveys were administered, they are missing. It appears all participants shared was a common village residence or church membership, therefore the 'representativeness' of comments from the sample cannot be determined nor can follow-up interviews be conducted with attendees.

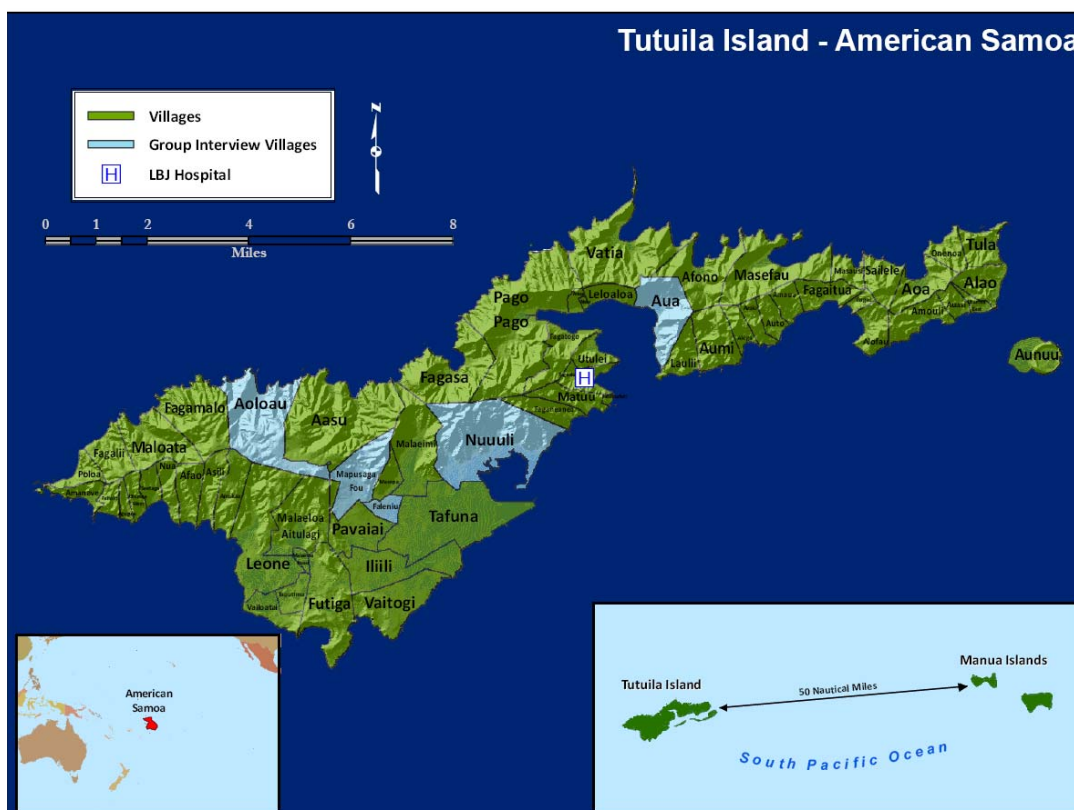


Village Group Interviewee  
Completing Demographic Survey

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<sup>8</sup> Nearly all program partners were American Samoa Department of Health (DOH) Programs. The ASCCN already has a Memorandum of Understanding (MoU) with the DOH, so secondary MoUs could not be created. Unfortunately, this allowed some program partners to never formally commit to Clinic activities.

Figure 2: Map of Tutuila Island, American Samoa



Group interviews were facilitated by the ASCCN Education and Outreach Coordinator and some were also attended by the ASCCN Principle Investigator (PI). Stipends were paid to village Mayors or *Pulenu'u* (\$50USD) for recruiting and to each individual participant (\$10-\$20USD)<sup>9</sup>. No tapes of the group interviews exist so the accuracy or completeness of written accounts is unknown. However, several interesting findings emerged from was recorded:

- Cancer was not amongst the most important health issues, rather exercise, diet and a clean environment ranked highest. Some felt cancer was not important because few have the disease and it is only discussed when someone dies from it. Some appeared to feel that cancer was a new phenomenon stating that there is no Samoan word for the disease and they never heard about cancer when they were young.
- Participants had negative and fatalistic associations with cancer. Cancer meant hopelessness, worry, and that death was near. Fear of the disease deterred people from screening or follow-up hospital visits.

<sup>9</sup> Honorarium payment to village leadership as well as research informants is customary in American Samoa and expected to gain access to communities.

- There was widespread knowledge of smoking leading to cancer. But, beliefs in what causes other cancers were highly varied—not taking local herbal medicine (fofo<sup>10</sup>) in time when feeling ill, a punishment from God, a result of spirit possession, or tuberculosis. Several participants felt that cancer was caused by germs or uncleanness. Others believed the disease is linked to a shift in diet from traditional foods to processed foods containing “chemicals and preservatives.”
- The mystery surrounding what causes cancer to lead many towards religious comfort<sup>11</sup>.
- Participants get information about cancer from four equally mentioned sources: the hospital, “Samoan doctors” or *taulasea* prescribing *fofo*, church pastors<sup>12</sup>, and those already diagnosed with cancer and their families.
- Finally, out of 76 participants, only 12 had ever heard of prostate screening and 0 had ever had a PSA test.

Village Group Interview  
Quotes-

*“Cancer is a disease people hardly get. We should be afraid of diabetes.”*

*“We should pity those who have cancer because there is no testing and no cure.”*

*“If you have cancer you should not tell another person because they can't help.”*

*“...if women don't live healthy it will lead to cancer.”*

*“Because the disease is new we go to the doctor or to the Lord. The Lord is the only cure. The Father in Heaven is the Doctor of all doctors.”*

*“If I were diagnosed I would rely on God.”*

*“[If diagnosed], all we can do is pray.”*



Village Group Interviewees



ASCCN PI, Dr. V. Tofaeono

<sup>10</sup> Samoan fofo are plant-based remedies mostly used as short-term pain killers.

<sup>11</sup> One village group was recruited through a local church, but it is unknown if religious views are overrepresented in these statements compared to the population as a whole or to the target population of men age 40 and older. This research has yet to be done.

<sup>12</sup> Members of the Mormon church often mentioned that their religion prohibits drinking and smoking and their church leaders encourage health prevention behaviors including screening for cancer.

## 2.4 Strategy Planning

The primary and secondary objectives of the Men's Health Clinic Program taken from the Overview are shown below. Program objectives addressed the behavioral and environmental/institutional barriers by stating the behaviors and actions necessary for Network Goals to be achieved.

Table 9: Program Objectives

<p><b>Primary Program Objectives-</b></p> <ol style="list-style-type: none"> <li>1) Target adult males ages 40+ who would not normally visit the hospital for preventative health procedures.</li> <li>2) Increase participant awareness and knowledge of prostate and lung cancer (risks, symptoms, importance of screening).</li> <li>3) Increase the number of males ages 40+ screened for prostate and lung cancer.</li> <li>4) Provide a comfortable setting for men personal health issues in general and prostate and lung cancer specifically with health care professionals.</li> <li>5) Identify males in need of further testing for prostate and lung cancer to increase early stage diagnosis.</li> </ol>	<p><b>Secondary Program Objectives-</b></p> <ol style="list-style-type: none"> <li>1) Strengthen collaborations with other cancer education and outreach groups to provide more comprehensive services and sustain program activities.</li> <li>2) Utilize media to raise awareness and knowledge levels and promote clinic attendance and screening before and after each clinic.</li> </ol>
<p>Indicators of Objective Success-  <i>None Determined**</i></p>	<p>Indicators of Objective Success-  <i>None Determined**</i></p>

**\*\*It is important to note that no specific Indicator statements were ever written for Program Objectives (such as target number of men attending each Clinic) nor were pre-intervention KAB and other statistical measures done.** This omission hampers a clear, objective evaluation of the Program overall. In light of this reality, a final 'report card' on the Program's achievements will be presented at the end of each evaluation section.



The next step in Formative Evaluation was deciding what type of strategies to use to fulfill Program Objectives. Two main strategies were employed, each with several components.

Table 10: Program Strategies

Program Strategies	
Host 5 Men's Health Awareness Clinics in 2006-07.	Produce target group and context appropriate media products and programs.
<ul style="list-style-type: none"> <li>a) Provide information via lecture format in Samoan.</li> <li>b) Offer free prostate specific antigen (PSA) blood tests to all male attendees to screen for prostate cancer.</li> <li>c) Offer free chest x-rays to all current and past male smokers to screen for lung cancer.</li> <li>d) Offer free basic health vitals evaluation tests<sup>13</sup> (weight, blood pressure, blood sugar, temperature) and provide participants with immediate results.</li> <li>e) Develop a system to provide clinic participants timely screening test results and advice.</li> <li>f) Collaborate with relevant agencies to maximize local assets in the promotion and execution of clinic activities.</li> </ul>	<ul style="list-style-type: none"> <li>a) Produce bilingual (Samoan/English) brochure on prostate cancer risks, symptoms, the importance of screening, and the screening process. Obtain and disseminate other print materials on prostate cancer.</li> <li>b) Produce bilingual (Samoan/English) clinic promotion posters and post at the LBJ Medical Center, Government Buildings, retail stores and restaurants.</li> <li>c) Produce and air radio spots and participate in radio interviews on at least 3 stations highlighting prostate cancer screening at LBJ Hospital.</li> <li>d) Participate in television program interviews on 2 stations (government and private) highlighting prostate cancer screening at LBJ Hospital.</li> </ul>

In order to host the Men's Clinics, several logistical matters needed to be taken care of including choosing a venue, date and time; initiating partnerships and assigning tasks; securing participation incentives; attracting the main target group; and developing materials and presentations.

#### 2.4.1 Location, Date and Time

Each clinic was held at the LBJ Hospital Conference Room because of its close proximity to hospital lab facilities and the convenience of recruiting nurses for screening tasks. Because there is only one hospital on the island, both the primary and secondary target populations were familiar with its location. Also, the hospital vouchers for clinical services provided as incentives were more likely to be used the day of Clinics if the event was held at the hospital. The capacity of the conference room is 35-40.

Clinics were held on Saturday mornings from 8:00-12:00am. This allowed working men to attend and still utilize public transportation if necessary. The five clinics were held approximately three months apart on June 24, 2006; September 23, 2006; January 20, 2007; May 26, 2007; and September 29, 2007. This allowed for adequate preparation and media promotion before each event and time to communicate test results to participants after Clinics.

<sup>13</sup> Vitals screening always included weight, blood pressure and temperature at each Clinic. Clinics 2-5 also added blood glucose testing via strip tests.

## 2.4.2 Partnerships and Roles

Partnerships were sought primarily with relevant local health agencies: the Breast and Cervical Cancer Early Detection Program (BCCEDP); Tobacco Intervention Group (TIG); LBJ Laboratory (Lab); LBJ Radiology; LBJ Business Office; Tafuna Health Clinic<sup>14</sup> (THC); the American Samoa Community Cancer Coalition<sup>15</sup> (ASCCC); the Office of Samoan Affairs (OSA); and various local media. The ASCCN staff managed the coordination of partners and media promotion, and encouraged general program advocacy. The ASCCN PI gave informational presentations on prostate cancer at each clinic, provided media interviews and authorized all PSA tests related to clinics.

Each partner was asked to fill the following roles in the implementation of the Clinics:

BCCEDP:	Volunteer nurses and staff for screening tests, program advocacy
LBJ Lab:	Phlebotomist to process PSAs, post results for ASCCN to access
LBJ Radiology:	Radiologist and staff to perform chest x-rays, post results for ASCCN to access
LBJ Business Office:	Process test vouchers, coordinate facility use and patient follow-up with test results
THC:	Volunteer nurses and staff for screening tests
TIG:	Provide tobacco and lung cancer education presentation and materials
ASCCC:	Program advocacy, volunteers, in-kind donations
OSA:	Provide access to all village Pulenu'u, program advocacy
Media:	Provide interview opportunities on radio and television talkshows, promote clinics on community bulletin announcements (radio, television and print), print ads and articles

## 2.4.3 Participant Incentives

Poster, radio and TV promotion of Clinics clearly stated that prostate (and lung cancer) screening tests would be free of charge to attendees. Participants only needed to bring their hospital ID card and identification. Normally prostate cancer screening would require a \$10 doctor visit and \$10 PSA test charge<sup>16</sup> for residents.<sup>17</sup> At the Clinics all men were offered vouchers to cover the cost of the PSA and men at risk for lung cancer, current or past smokers as indicated on demographic surveys, were offered vouchers for chest x-rays. A small attempt was made at implying intangible

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<sup>14</sup> The Tafuna Health Clinic is a satellite health facility located in the largest village on Tutuila Island. It primarily functions as a diabetes prevention and care clinic supported by Brown University (USA) researchers.

<sup>15</sup> The ASCCC is a member of the ASCCN composed of health professionals, volunteers and cancer survivors who focus on cancer survivorship, education and outreach.

<sup>16</sup> Chest x-rays would require a \$10USD doctor visit and cost \$43USD for the test.

<sup>17</sup> American Samoa operates a socialized system of health care for all residents. Most American Samoans born in the Territory are residents. US Citizens and Nationals are considered residents after 6 months. Obtaining residency status varies depending on several factors and can take between 3 months and 20 years. Non-residents seeking a PSA test may be billed between \$34.53 and \$130.00USD for the initial doctor visit and \$38.55USD for the screening.

incentives to attend Clinics appealing to men's masculinity and sense of social acceptability via posters by that called the event "Prostate and Lung Cancers: *What Every Samoan Man Should Know*" and by featuring a local doctor in a radio spot "urging" men to "take action." Tangible incentives were never defined for Program Partners, instead agencies with similar mandates were asked to collaborate with the understanding that mutual goals would be achieved.

#### 2.4.4 Media Campaign

Perspective Clinic participants were informed of the events and prostate cancer screening services at LBJ Hospital via posters, radio spots, radio and television interviews, and newspaper ads and articles. *There was no analysis of the target groups' media behaviors as to which, if any, media outlets they use or prefer. There is also no evidence of any pre-testing of any media messages or products over the course of this Program, nor proof of target group feedback informing the revision or development of new messages or media.* Instead the program utilized nearly all major media outlets available on Tutuila Island: 4 radio stations, 2 television stations and one newspaper. It is assumed that every household on Tutuila has access to at least one radio and at least one television. Not all radio stations can be received island-wide and only the government-owned television station, KVZK, can be received island-wide.

Table 11: Media Profiles

Radio Stations			
KHJK FM- English, youth and working adult listeners, talk show	KSBS FM - Samoan, working and non-working adult listeners, talk show	KNWJ FM - Samoan, Non-denominational Christian religious, non-working adult listeners, talk show	KJAL AM - Samoan, Assembly of God Church, talk show
Television Stations		Newspaper	
KVZK- Samoan, Government owned, talk show 5 days a week, shows often repeated	Malama- Samoan, Private owned, talk show 5 days a week, shows often repeated	Samoan News- English and Samoan, widest readership on island <sup>18</sup> , available print/online 6 days a week, Feature health articles, event ads	

##### 2.4.4.1 Posters

Two posters were done in Samoan and English. Each stated where and when clinics were taking place, to bring a hospital card and identification, and men ages 40 or older were encouraged to attend. The 'Screen for Your Life' poster stated that "Cancer Screening Tests Will Save Your Life." This is a misleading statement that is not always true. The 'Did you Know...' poster was more factual noting that "Cancer is the 2<sup>nd</sup> leading cause of death in American Samoa" and "When treated early, prostate cancer can be cured." This poster also stressed that prostate cancer was a "DEADLY DISEASE," playing on fears and that "Cancer affects everyone, Save the life of a loved one," therefore reaching out to family and friends to motivate male attendance. No posters

<sup>18</sup> The Samoa News boasts a daily circulation of 7,000.

contained images. Posters were hung at LBJ Hospital, the American Samoa Government Executive Office Building, and various retail stores and restaurant chains mostly in the central area of the island. Posters were also distributed to Pulenu'u of each of the 64 villages on island via the OSA before Clinics 1 and 2.

#### 2.4.4.2 Radio Spots

Three radio spots were produced at KHJK radio over the length of the program and aired on KHJK, KSBS and KNWJ radio stations twice a day, seven days a week for the months of in September, 2006; February, 2007; and September, 2007. Two spots encouraged cancer screening for early detection and one spot specifically promoted the Men's Clinics for prostate and lung cancer screening giving dates and times. One spot stated that "1 out of 6 men in American Samoa will develop prostate or lung cancer"<sup>19</sup> but it is unknown if this statistic accurately applies to lung cancer. Another spot featured the voice of ASCCN PI as an expert encouraging people to see their doctor to be screened for cancer. All three spots ended with the ASCCN theme "Screen for cancer, find the cancer, beat the cancer."<sup>20</sup>

#### 2.4.4.3 Radio and Television Interviews

Radio and television interviews were done live on morning shows when audience numbers are highest. All interviews were in Samoan except for KHJK radio. A script for a television spot featuring ASCCN's PI encouraging PSA screening set in a hospital examination room was written but never produced.

#### 2.4.4.4 Feature News Articles and Ads

The ASCCN regularly contributes feature articles to the Saturday edition of The Samoa News, the most widely read newspaper in the Territory. Three articles were published during the program period about prostate cancer, on September 27, 2006; December 2, 2006; and May 12, 2007. The September article titled "Prostate cancer is Territory's third most common cancer" stated that prostate cancer affects 1 in every six men and detailed the activities of Clinic 2. The December and May articles provided facts about prostate cancer including risk factors, and who should be screened, and promoted the up-coming clinics. Each article ended with contact details if readers wanted more information from the Network. Newspaper ads providing details of the Clinics ran in the Samoa News for 5 days prior to each Clinic.

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<sup>19</sup> An ASCCN feature news article stated that "1 in every 6 men will be affected by prostate cancer" but it is unknown if this statistics also holds true for lung cancer.

<sup>20</sup> This ASCCN slogan also appears on billboards around Tutuila Island. At least one cancer survivor has responded negatively towards this slogan due to lack of cancer treatment options available locally. This slogan was never pre-tested with cancer survivors or the general public before being widely used. Reaction to the slogan will be assessed more thoroughly when the ASCCN formally evaluates the billboard campaign in 2008.

#### 2.4.5 Materials Developed

Several materials were developed for the Clinics: an informed consent form, demographic survey, participant evaluation form and a vitals recording card<sup>21</sup> (for weight<sup>22</sup>, temperature, blood pressure, and blood glucose levels).<sup>23</sup> Informed consent asked participants to voluntarily complete demographic surveys and agree to take part in informational sessions and discussions that would remain anonymous. Collecting demographic information from all ASCCN program participants would enable better understanding of target population such that tailored interventions could be developed and statistics on personal cancer status and family of history of cancer could be gathered in lieu of no formal cancer registry. And, because prostate cancer carries hereditary risk demographic surveys also asked details of cancer in the participant's family. Participants at Clinics 4 and 5 were also asked where they had heard of the clinics so the impact of media activities and OSA outreach could be partially evaluated. No items asked for education level or income level during the clinics, but these items were added for the final Program Impact Evaluation Focus Group event held in June, 2008.

#### Demographic Survey Items

- current village residence
- birth place
- birth date
- marital status
- religious affiliation
- family history of cancer
- employment status
- type of employment
- ethnicity
- smoking status
- cancer status
- source of Clinic invitation

An informational prostate cancer brochure was also produced in English and Samoan and distributed at each Clinic. The brochure defined cancer and prostate cancer, provided statistics, prostate cancer risks and symptoms, steps in prostate cancer screening and websites for more information. The brochure also attempted to include relevant images and a diagram similar to the one found on page 1 of this report.

At each Clinic, participants were given a PowerPoint presentation by the ASCCN PI about prostate cancer containing much of the same information contained in the brochure, however, the presentation contained no pictures or diagrams. Staff from the TIG presented information on lung cancer including statistics, risks, symptoms, tests and treatment along with a graphic poster showing the bodily effects of cancers caused by smoking at Clinics 1 and 2. No lung cancer

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<sup>21</sup> Vitals cards also had several contact phone numbers: Tobacco Control Program; Tobacco QUIT-LINE; TFH; BCCEDP; ASCCN; ASCCC.

<sup>22</sup> As previously mentioned, Samoan males tend to be overweight or obese and many men are unaware of their weight or the implications added weight has on overall health.

<sup>23</sup> According to the WHO 2007 Non-communicable Disease Risk Factors STEPS Report, American Samoan males had significantly higher systolic and diastolic blood pressures than Samoan females and that mean blood pressure for both genders increased with age. A 1994 study found that the prevalence of hypertension amongst American Samoan males was >35% whereas females were at 18%. Diabetes prevalence rates are even more alarming with WHO (2007) reporting 67.4% of American Samoan males ages 45-64 being diabetic as evidenced by diagnosis and current medication usage and/or having a fasting blood glucose  $\geq 110$ mg/dl.

information was available after Clinic 2. Presentations on lung cancer were conducted by the ASCCN PI at Clinic 3 and were discontinued afterwards.

No pre- or post-KAB surveys were given before or during Clinics. However, Participant Evaluation Forms asked for comments and suggestions and if attendees:

- knew of prostate cancer and lung cancer before the clinics
- knew more about prostate and lung cancer after the clinics
- knew of prostate and lung cancer screening before the clinics
- thought the clinic was useful
- would attend future clinics and encourage others to attend clinics

### 3. Formative Evaluation Conclusions and Recommendations

3.1 There is no evidence of a **literature review or program rationale** ever written for the Men's Health Clinic Program. Research on prostate cancer in the United States is plentiful and it should be used in the development of future programs along with analysis of other health issues affecting men in American Samoa.

#### Research Recommendations:

- Seek prostate cancer statistics on Pacific Island males and publish local findings.
- Compare local findings with prostate cancer statistics in the United States and other Pacific islands when possible to determine if and how interventions can be adapted.
- Locate and trial weight-adjusted PSA analysis scales to test for better accuracy of prostate cancer detection amongst the largely overweight or obese American Samoan male population.

#### Programming Recommendations:

- Partner with THC diabetes prevention/care outreach staff and LBJ Nutritionist to promote diet as prostate cancer prevention.

3.2 The **village group interviews** provided a first glimpse into American Samoans KAB related to cancer. It is unlikely participants came from a random sample of the population and without demographic information or a more formal KAB survey of the specific target group—males ages 40 and older—information from the group interviews was not adequate to develop tailored information or services. Yet, some general information gained from the group interviews could have been of value to media message and product development. Common cancer misconceptions could have been debunked, reliance on local herbal medicines addressed, and fears and 'religious-fatalism' eased, but this was not attempted via media or information sessions. Group interviewees also seemed to link diet and cancer, however this risk factor was not stressed in media or Clinic activities. And, data from the village group interviews was far less useful without demographic information. Village data should have been presented to informants before the program was

planned for feedback and approval. Instead it was "given back" to informants after 3 Clinics were already completed, showing a lack of a participatory approach.

In short, Men's Health Clinics did not attempt to tailor information and services to the target group's specific needs because they were never uncovered in the Formative Evaluation phase. Analysis of the village group interviews was surface level and no attempt was made at using data to better target men or to involve them in planning the Clinics.

#### Research Recommendations-

- Conduct pre- and post-intervention KAB surveys with key target groups.
- Always gather demographic information with each survey, focus group or interview.
- Obtain consent and tape and transcribe interviews and focus groups.
- Present data findings to village informants shortly after (within 1 month) interviews or surveys to verify results.
- Consider offering non-cash incentives to village informants to foster sustainability of community-level data gathering and cooperation.
- Revisit village interview data to develop future research questions.

#### Programming Recommendations-

- Use data from surveys, focus groups and interviews to develop program objectives and strategies tailored to the needs of the target group.
- Invite informants to help develop program objectives, strategies and indicators of success for evaluation.

3.3 The **Program's Objectives and Strategies** should be "SMART"--specific, measurable, attainable, relevant and time-oriented. Objectives and strategies seemed relevant to the Network's goals, mission and vision and attainable in that they were ambitious but doable with the cooperation of partners. Program objectives could improve by being rewritten to including *who, where, how much or how often* and *by when* language. Each strategy should also have at least one qualitative and/or quantitative indicator of success so that evaluation is clear and useful. And forethought assumption statements should accompany each objective statement to possibly account for missing the mark by program's end.

#### Programming Recommendations-

- Write program objectives in SMART language.
- Write qualitative and quantitative indicator statements for each program objective.
- Consider more participatory strategies that create new roles for the target group such as including cancer survivors in the planning, implementation and evaluation of strategies.

- Note assumptions for reaching each program objective (ie. each partner fulfills their role, between 50-100 men are expected to attend each Clinic, etc.) to help express 'lessons learned.'

3.4 Several **partners** were needed to carry out strategies making coordination vital to the success of the program. Managing information sessions and several screening tests for a potentially large group within only a few hours requires adequate space and a flow of people and activities to maintain the momentum of the event. Developing a simple flow chart of Clinic stages or 'stations' within a space and calculating adequate staff-to-participant ratios is key to organizing diverse partners and accommodating a 'non-health seeking' population. It is important to also understand the needs and abilities of partners as a secondary target group in order to motivate them and offer relevant but sustainable incentives.

**Research Recommendation-**

- Conduct partner analysis and plan activities to motivate their involvement.

**Programming Recommendation-**

- Consider signing formal Memorandums of Understanding to define partner roles and encourage fulfillment of responsibilities or recruiting a cadre of committed volunteers who can be trained and utilized throughout the program.
- Attempt to 'institutionalize' partner involvement by blending Clinic activities into work they already do to foster sustainability and gain more 'volunteer' commitment.
- Ensure adequate space for clinic activities.
- If participant numbers rise, consider staggering men by age, village location (west, central, east), etc, or hosting Clinics more often.

3.5 The **media** response was strong, with radio, television and print activities leading up to each Clinic. However, media products seem to be basic and untailed to the target group reflecting a lack of a communication strategy and little to no analysis of the target group's needs, values and preferences. Distributing clinic flyers to all village Pulenu'u via the OSA was a good use of available resources, however it was unknown how much leaders then promoted the events in their villages.

**Research Recommendation-**

- Pre-test all brochures, posters and radio spots with the target group, cancer survivors and health care providers for message content and delivery/display. Fact-check all products.

**Programming Recommendations-**

- Develop a communication strategy for the program based on the social marketing principles of "product, price, place, promotion and partnerships."



- Tailor all media products to the primary target group and relevant secondary target groups that serve as gatekeepers or 'influentials.' Use information from village group interviews and other tools (surveys) to understand the needs, values and preferences of target groups.

3.6 Developing **demographic surveys and participant evaluation forms** is always an evolving process. Demographic information and evaluation feedback should be compiled after each Clinic in order to make improvements to the content and layout of these tools. The demographic form asks for cancer status and family history of cancer at the end of the forms, using a confusing layout and equivocal language. Some demographic items such as marital status or religion may be omitted for this health issue so that informants focus on the more important items, (unless a master database of demographics from all ASCCN activities is desired). It is always good to include a 'comments' section on evaluation forms, but comments should be used to improve future programs.

**Research Recommendations-**

- Compile and analyze data from all forms after each Clinic paying attention to which items are unanswered or answered "incorrectly". Make improvements to form content and layout to improve response rates.
- Only include items of necessity on forms. Include items related to education level and income level as better indicators of wealth and health literacy than 'type of work' (government, private, retired, etc.)
- Make changes to participant evaluation forms to avoid retrospective language ("did you know...") and predictive language ("will you...") whenever possible as these are more difficult to measure. Create pre- and post-KAB surveys as part of participant evaluation forms and, whenever possible, withhold incentives until forms are completed.

Final Formative Evaluation Rating	
Analysis of health issue	★ ★ ★
Analysis of target populations	★ ★ ★
Baseline data collection	★ ★ ★
Pre-testing materials	★ ★ ★
Program objectives and strategies	★ ★ ★

#### 4. Process Evaluation

Process Evaluation aimed to determine how effective strategies were in reaching the program objectives. This stage of assessment looked at:

- the number of clinic attendees and partners;
- participant demographic details and event feedback;
- effectiveness of partners in assigned roles;
- efficiency of the flow of clinic activities;
- participant response to presentations and media;
- and, how many screening tests were done.

Men's Health Clinic participants experienced a 'one-stop-shop' type event that provided increased awareness and knowledge, medical advice, and the experience of several simple screening procedures. Clinic activities aimed to accommodate the known characteristics of the target group. Because adult males do not normally go to the hospital for health prevention, are less accessible during the week, and are less inclined to spend hours at the hospital, the clinics provided incentives, took place on Saturdays and met the needs of between 40 and 135 men in the span of a single morning. The ultimate goal of the Clinics was to motivate behavior change, namely increasing the number of men voluntarily screened for prostate and/or lung cancer. Gaining a new level of awareness of the risks, knowledge of the symptoms of cancer, and benefits of screening paved the way for the experience of having a PSA and/or chest x-ray at the Clinic. And having access to a doctor in a male-only forum provided an environment for asking sensitive questions to dissipate fears.

##### 4.1 Clinic Locations

Clinic activities took place in and around the LBJ Hospital Conference Room.



LBJ Conference Room



Entryway from Parking Lot and door to Hallway



Hallway adjacent to Conference Room



Courtyard outside Conference Room

The Conference Room had a capacity of 40, however at large Clinics up to 60 men crowded into the space for Informational Sessions. Although a larger venue was needed, the close proximity of the Conference Room to other hospital facilities (lab, diagnostics, and business office) made activities feasible. Moving screening equipment and staff to more remote, village-based settings was considered, but some Clinic attendees were men with dangerously high blood pressure levels, detected through vitals checks, who were able to be seen at the hospital emergency room immediately.



Clinic Sign-in in Entryway; Prostate cancer Information Session and Q&A with ASCCN PI in Conference Room



Vitals Checks in hallway: weight and blood pressure; Lung cancer Information Session in Conference Room at Clinic 1

#### 4.2 Clinic Schedule

Men's Health Awareness Clinic attendees experienced the following:

Table: 12 Clinic Schedule

Step	Participant Action	Partner(s) Responsible	Location	Time	Concurrent Action
1	Sign-in with name and phone number	ASCCN, ASCCC	outside entryway	2 min	
2	Complete informed consent and demographic survey	ASCCN, ASCCC	outside courtyard	15 min	
3	Have vitals checked--weight, blood pressure, blood sugar--and recorded on card for participant to share with Doctor at future visit	DOH, THC	inside hallway near Conf Rm	10 min	
DELAYS					
4	Observe presentations on prostate cancer and lung cancer, participate in male-only question and answer session with health care professional/presenter	ASCCN, TIG, <sup>24</sup> LBJ Business	Conference Room	15 min Prsent. 30-40 min Q&A	Participant's completed forms sent to LBJ Business to issue PSA and/or chest x-ray screening test vouchers
5	Complete evaluation forms	ASCCN, ASCCC	Conference Room	5 min	
DELAYS					
6	Receive vouchers for PSA and/or chest x-ray	LBJ Business, ASCCC, Other Volunteers	outside entryway	5 min	
7	PSA and/or x-rays	LBJ Lab, LBJ Radiology	(PSA) Clinics 1,2-Lab; Clinic 3- courtyard; Clinics 4,5-office near Conf. Rm (x-ray) LBJ Hospital	PSA 10 min X-ray 15 min	

After completing vitals screening tests, groups of 40 men were sent into informational sessions, first come first served. Men were encouraged to have PSA and/or chest x-ray screening tests directly after informational sessions, but they could return to the hospital at a later date to use them.<sup>25</sup>

<sup>24</sup> TIG provided presentations at Clinics 2 and 3 only.

<sup>25</sup> Clinic participants were told screening test vouchers would expire in 2 weeks to motivate their early use.

Although informational presentations were 15-20 minutes, sessions tended to run longer than 45 minutes due to many participant questions. Information sessions were male-only and questions were sometimes personal and individual, reflecting the reality that men have many general health concerns and wanted to take advantage of having access to a doctor outside of a regular hospital appointment. The most common questions men asked at Clinics included:

- How common is prostate cancer?
- What are the tests for prostate cancer?
- What kind of doctor treats prostate cancer?
- What is involved in a prostate biopsy
- Can you get prostate cancer through sexual intercourse?
- How do you get prostate cancer?
- How do you treat prostate cancer?
- Can only men get prostate cancer?
- Can you treat prostate cancer in American Samoa?
- How can I tell the difference between urinary frequency from diabetes and prostate problems?

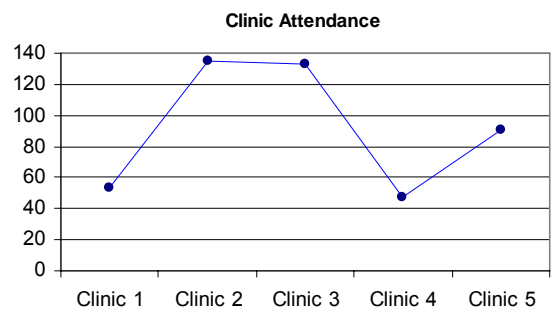
Although superfluous, Vitals Checks proved to be a very important element of the Clinics in that they provided quick validation of the importance for preventative health care. Counseling was provided about Vitals results from qualified nurses and each participant left with a Vitals Card they were encouraged to bring to their "next doctor's visit" thereby motivating them to continue to stay on top of their health. The hallway where Vitals Checks happened was clean and cool but small and only 3 men could be served at a time as they worked their way through stations. The size meant a lack of privacy and delays at Clinics with 100+ participants. Delays also happened when men left informational sessions to skip straight to PSA tests and x-rays. The ASCCN was committed to raising awareness and knowledge along with overall screening rates so staff convinced men to stay through all steps of the Clinics to get their test vouchers and complete screenings at the end.

#### 4.3 Clinic Attendance

A total of 459 men completed consent and demographic forms at 5 Men's Health Awareness Clinics and 88% went on to have PSA screening tests. Eighteen (18) men attended 2 clinics and 3 men attended 3 clinics. The drop in attendance from Clinic 3 to Clinic 4 was due to high school and college graduation ceremonies and inclement weather. There was also less sustained media promotion in the months and weeks before Clinic 4 compared to other Clinics.

#### 4.4 Participant Demographics

Figure 3



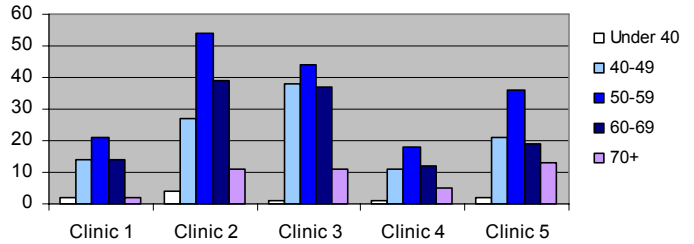
#### 4.4.1 Age Distribution

Media promotion aimed to attract men age 40 or older to attend the Clinics.

Figure 4 shows that nearly all participants fit this target profile.

Ten (10) Clinic participants (<1%) were under age 40.

Figure 4  
 Participant Ages by Clinic



#### 4.4.2 Ethnicity and Birthplace

All men ages 40 and older were invited to Clinics and no man was turned away.

However, the main target group the ASCCN serves is American Samoans of Samoan ethnicity<sup>26</sup>. The great majority (89%) of Clinic participants were of Samoan ethnicity (Figure 5) but only 52% of Samoan attendees were born in the Territory--32% of all Clinic participants (Figure 6). Nearly all participants not born in American Samoa who attended Clinics had residency status apparent by the majority of whom received PSA tests with vouchers after presenting Hospital ID cards<sup>27</sup>.

Figure 5  
 Participant Ethnicity - All Clinics

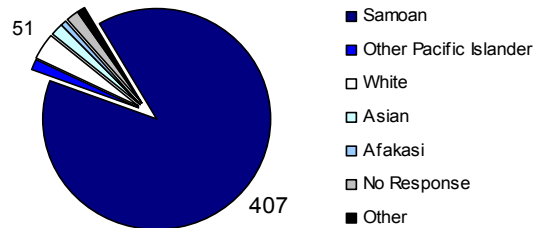
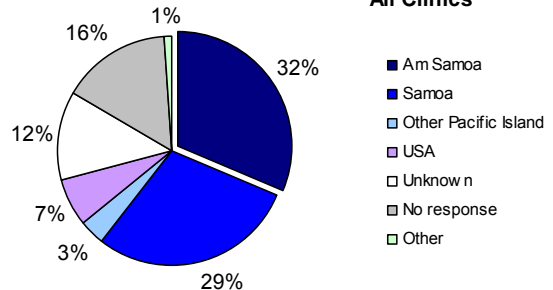


Figure 6  
 Participant Birthplace - All Clinics



#### 4.4.3 Employment Status and Type

The majority of participants were employed and worked for the government<sup>28</sup>. Government leaders were targeted via posters at the Government's Executive Office Building, and flyers were distributed to all Pulenu'u before Clinics 1 and 2 at the OSA.<sup>29</sup> This appeared to be effective at Clinic 1 when 10 Pulenu'us and 1 Fono<sup>30</sup> member attended and at Clinic 2 when 8 Pulenu'us, 4 Fono members

<sup>26</sup> Afakasi is a Samoan word for a person of 'mixed' ethnicity, usually Samoan and White.

<sup>27</sup> Only American Samoan residents and US Nationals can obtain Hospital ID cards to access the socialized health care system in the Territory. There is a belief that 'non-US nationals/citizens' drive up hospital costs, but support or opposition for this notion was not researched for this report.

<sup>28</sup> According to 2006 American Samoa Department of Commerce labor statistics, 34% of the Territory's total labor force is employed by the government, 27% are employed by canneries and the remaining 39% work in the private business sector or are self-employed.

<sup>29</sup> The ASCCN PI also gave at least one presentation to Pulenu'u at the OSA pertaining to Clinic 1 or 2.

<sup>30</sup> Council of Traditional Village Chiefs.

and OSA staff attended. Albeit few, if any, village men's attendance can be attributed to targeted leadership spreading the word.

Reaching more unemployed or retired men and specifically targeting church and private business leaders via media or other promotions may be a future challenge.

Although there are a great number of churches in American Samoa<sup>31</sup> and religious leaders appear to have strong influence, the majority of churches do not have traditional 'employees',<sup>32</sup> so it is unlikely that Clinic participants would have identified themselves primarily as 'church employees'. It is important to explore avenues to reaching this sub-group via means they find relevant. Much of the radio media was aired on a religious station (KNWJ), but it is unknown whether church leaders/employees respond to this station.

#### 4.4.4 Religious Affiliation

Nearly every participant identified themselves as belonging to a church as shown in Figure 10, so this avenue of promotion for cancer awareness and screening should be explored more fully in the future.

Figure 7

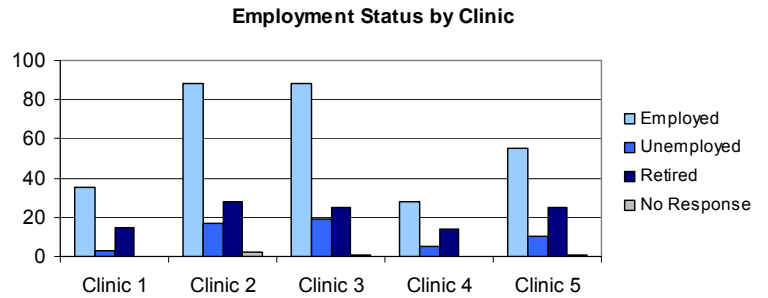


Figure 8

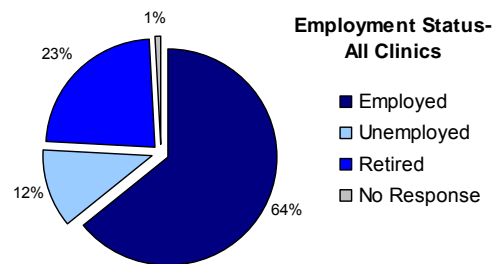


Figure 9  
 Type of Employment- All Clinics

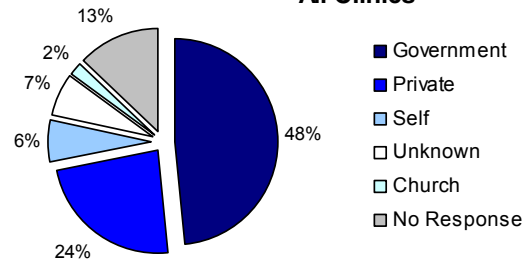
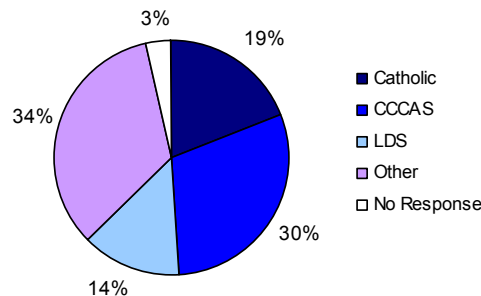


Figure 10  
 Participant Religious Affiliation



<sup>31</sup> The American Samoa Department of Commerce Coastal Zone Management program identified 134 churches on Tutuila Island in 2004 or approximately 1 church for every 400 people on the main island at the time (population 55,876 Tutuila Island, 2000 Census) or 1 church per every 1.8 square miles (77 square miles total). There are undoubtedly more churches on Tutuila in 2008 but this figure is not available.

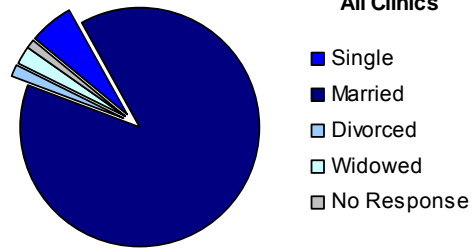
<sup>32</sup> Church leadership is housed and paid by the congregation and most other church positions are voluntary.

#### 4.4.5 Marital Status

Most participants were currently married, (Figure 13) which is typical of men in the target group. It is unknown how influential their wives may be in motivating health prevention behaviors such as prostate cancer screening.

Figure 11

**Marital Status - All Clinics**

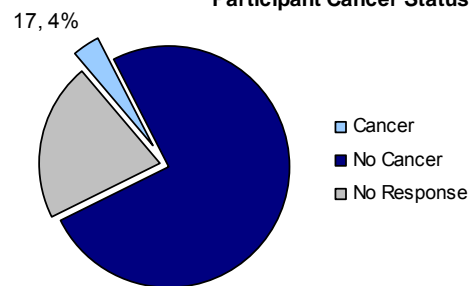


#### 4.4.6 Cancer Status

Seventeen (17) Clinic participants or 4% of the total answered yes to the question "Have you ever been diagnosed with cancer or are you a cancer survivor?" Three (3) participants had previously been diagnosed with prostate cancer, 2 with colon cancer, 1 with stomach cancer, 1 with lung cancer, and 1 with an "unknown tumor."

Figure 12

**Participant Cancer Status**



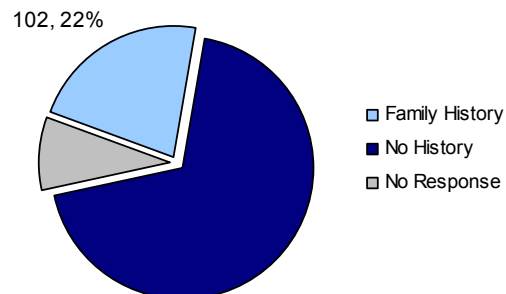
Nine (9) had no response to the follow-up question "What type of cancer do you have?" so it is unclear if the questions were fully understood<sup>33</sup>. Village group interviews indicated that many people get their information about cancer primarily from those with the disease or their families. Therefore, it was positive to see this many cancer patients and survivors attend Clinics where they could be seen as role models and possibly lend to the question and answer sessions.

#### 4.4.7 Family History of Cancer

Almost one quarter (22%) of Clinic participants indicated a family history of cancer.<sup>34</sup> Half were able to provide at least some details such as the type of cancer, family member diagnosed, place of diagnosis and place of treatment. The most common cancers sited amongst

Figure 13

**Participant Family History of Cancer**



<sup>33</sup> The words 'diagnosed' and 'cancer survivor' may not have been understood. Also, the majority of participants did not provide information as to where they were diagnosed and where they received treatment, leading us to believe the questions could have been worded better or a clearer survey layout could have improved the response rate.

<sup>34</sup> The word 'family' was not strictly defined as a 'blood relative' on the demographic survey. Some participants stated their wives had cancer and aunts and uncles by marriage cannot be determined.



family members were: prostate (21), lung (17), breast (15), and colon (7). Nearly all family members with cancer were diagnosed and treated outside of American Samoa.

Knowing of a relative with cancer was mentioned in several village group interviews and indicated higher personal levels of cancer awareness and knowledge. Knowledge levels of Clinic participants with a family history of cancer were not assessed at the Clinics so they cannot be compared to those of other men. Utilizing family members of cancer survivors and those who have died from cancer may prove positive in future education and screening campaigns.

#### 4.5 PSAs and Results

##### 4.5.1 Behavior Uptake

In the absence of written indicators of objective achievement, it is possible to measure program success in terms of up-take of the desired behavior: PSA screening. It was also important for participants to complete demographic surveys so a 'full data set' could be analyzed—comparing PSA results to other personal characteristics.

Of the 475 Clinic participants, 97% completed demographic surveys. Ninety-four percent (94%) or 447 men volunteered to receive a PSA voucher over 5 Clinics. As of May, 2008, 404 (90%) of these vouchers were used. So a 16% loss to uptake took place<sup>35</sup>.

Table 13: PSA Uptake and Completed Demographics

clinic	total # participants	# participants w/ demographic, % of total	# PSA vouchers	# PSAs, % total vouchers	<b>Full Data Set</b> % participants w/ demographic receiving PSAs
1	53	53, 100%	51	30, 59%	57%
2	138	135, 98%	135	121, 90%	90%
3	136	133, 98%	123	125, 102%*	94%
4	55	47, 85%	53	44, 83%	94%
5	93	91, 98%	85	84, 99%	92%
TOTAL	475	459, 97%	447	404, 90%	<b>88%</b>

Clinic 1 saw the least follow through with PSA screening and demographic survey completion. But this was remedied in subsequent clinics at which 90% and upwards of participant data was available for analysis in this evaluation report. As the participation grew at Clinics, timing of each element became a factor. Some men signed-in and completed demographic surveys but did not have a PSA because the wait for the next informational session became too long and they left the

<sup>35</sup> 6% of all Clinic participants did not request PSA vouchers and 10% of all vouchers distributed were not used = 16% loss to uptake of the desired behavior.

Clinic. Overall, an 88% uptake rate is an impressive accomplishment for a pilot program of this nature with this new target group.

Table 14 shows the number of PSAs done per age group of Clinic attendees. An average of 89% of target group attendees, men age 40 or older, took up the desired behavior of having a PSA screening test.

Table 14: PSA Uptake by Age Group

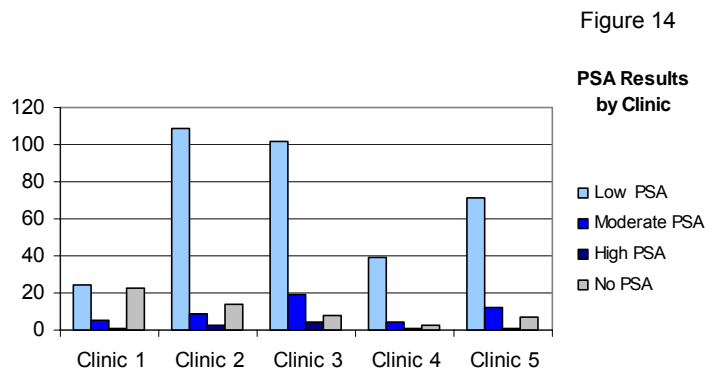
Age Group	# PSA tests, % of total in age group
<40	6, 60%
40-49	97, 87%
50-59	154, 89%
60-69	111, 92%
≥70	36, 86%

#### 4.5.2 Analysis of PSA Results

Test result interpretation varied slightly from Clinic to Clinic in terms of who was advised to have a follow-up PSA test due to initial elevated results<sup>36</sup>. For purposes of this evaluation the General PSA Analysis Scale (Table 2) was used where low PSAs were  $\leq 2.99$ ; moderate PSAs were 3.00-9.99; and high PSAs were  $\geq 10.00$  regardless of age.

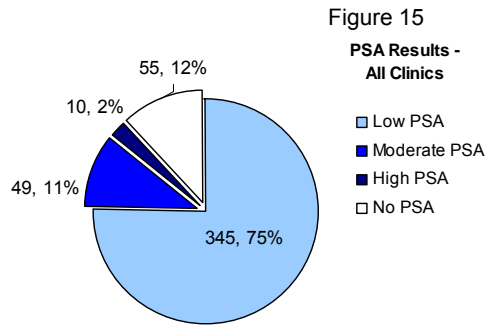
Each Clinic saw low, moderate and high level PSA scores. The majority of men at all Clinics had low or normal PSA scores; 75% of all Clinic participants (86% of all participants having a PSA).

Forty-nine (49) participants had moderately elevated PSA's; 11% of all participants (12% of all having a PSA).



<sup>36</sup> Clinic 1 referred 6 participants with PSAs  $\geq 3.00$  for repeat testing and 4 participants with PSAs ranging from .94-1.49 because they were also symptomatic. At Clinic 2 some participants with PSAs  $\geq 2.00$  were referred for repeat testing while some with PSAs  $\geq 3.00$  were told to have yearly PSAs, symptoms of were unrecorded. Clinic 3 encouraged participants with PSAs  $\geq 2.00$  to be retested. Clinic 4 referrals for retesting are unavailable. Clinic 5 referred participants for retesting if PSAs were  $\geq 2.00$ . Ten (10) men with PSAs  $\leq 2.50$  who were not referred for repeat PSA screening chose to have a repeat PSA of their own accord during the program period.

Ten (10) participants had high PSA results; 2% of all participants (2% of all participants having a PSA). Fifty-five (55) participants offered a PSA test did not have one; 12% of all participants.



#### 4.5.3 Notification of PSA Results

After each Clinic, ASCCN provided LBJ with a list of Clinic participants to follow up on all PSA and X-ray results and to track use of vouchers. ASCCN staff used the names and phone numbers participants signed-in with, however, Samoan men are often known by more than one name and phone numbers are sometimes no longer in service or not the most direct line to a participant. The LBJ Hospital also registers all patients with a hospital ID number which sometimes did not match a name provided at Clinic sign-in. Upon receiving the PSA results from LBJ, ASCCN staff attempted to contact each participant with low/normal PSAs via a minimum of two phone calls to the number provided. The ASCCN PI contacted all participants with abnormal (moderate to high PSA levels) and advised a follow-up PSA. ASCCN kept a Clinic participant follow-up log to note PSA and other test results (DRE, biopsies) as information became available. Records were also kept on vouchers used for PSAs and x-rays for payment.

#### 4.5.4 PSA Increases

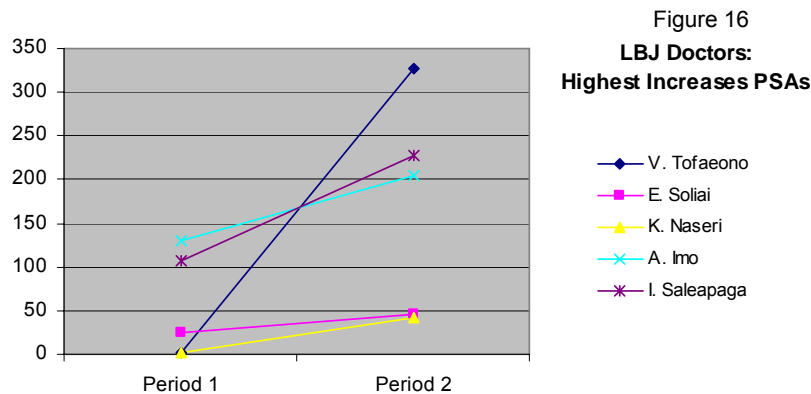
Before and after the Clinics, men received PSA tests for prostate cancer upon recommendation of a doctor at the LBJ Hospital.

Table 15: Known PSA Increases during Program Period Through Clinic 3

	Period 1- June 23, 2005 - June 22, 2006 (12 mos prior to Clinic 1)	Period 2- June 23, 2006 - May 23, 2007 (11 mos, 1 day prior to Clinic 4)	
		Part of Clinics 1, 2, 3	Outside of Clinics 1, 2, 3
# PSAs	402	328	656
		984	

In the 12 months prior to Clinic 1 (Period 1) 402 PSA tests were performed at the LBJ Hospital Lab. Over an 11 month period after Clinic 1 and prior to Clinic 4 (Period 2) 984 PSA tests were performed. Of these, 309 PSAs were conducted as part of Clinics 1, 2 and 3 and were covered by vouchers. The remaining 656 PSAs were conducted at LBJ Hospital outside of Clinics, an increase of 254 PSA's.

No prostate cancer media campaigns or screening events had ever been held in American Samoa prior to the ASCCN's program, so this increase in PSAs done outside of Men's Clinics is a positive sign that more men received the screening message than attended Clinic events and/or more LBJ doctors were ordering PSA tests, perhaps at the request of their patients. Doctors were not specifically targeted for this program; however several physicians showed marked increases in the number of PSAs they ordered from Period 1 to Period 2.



The ASCCN PI, V. Tofaeono, ordered the greatest increase in PSAs because he authorized all PSAs at the 5 Clinics. It is unknown what motivated other doctors to increase PSA testing and therefore it is not possible to attribute all of these increases to ASCCN activities without further inquiry.

#### 4.5.5 Target Population Segmentation

The Men's Health Clinics aimed to reach a broad target population of men age 40 and older. Future programs can tailor media and clinical interventions to the specific profiles of segments of this population. In order to develop profiles of Clinic participants based on their PSA results, individuals' demographic surveys were matched with test result categories.

The majority in all three segments shown in Table 16 site a religious affiliation and are married, but differences exists in average age, working status, smoking status, cancer status, family history of cancer and media usage. Important information about health and cancer-related KAB, education level, income level, health literacy level, and personal values are still unknown. Therefore, this data from the 5 Men's Clinics should be augmented by a more thorough analysis of target population segments.

Table 16: Target Population Segment Profiles by PSA Score Category

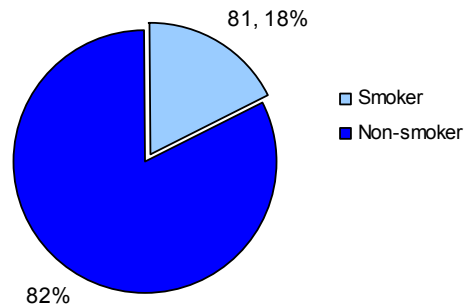
High PSA Profile	Moderate PSA	Low PSA
<ul style="list-style-type: none"> <li>◦ Ages 60-87, average age 67</li> <li>◦ All of Samoan ethnicity</li> <li>◦ Majority born in American Samoa</li> <li>◦ Majority married</li> <li>◦ All with religious affiliation</li> <li>◦ Majority retired</li> <li>◦ All non-smokers</li> <li>◦ Majority no chest x-ray</li> <li>◦ None identified themselves as current cancer patients or cancer survivors</li> <li>◦ Majority no family history of cancer</li> <li>◦ None cited a media as a source of Clinic information</li> </ul>	<ul style="list-style-type: none"> <li>◦ Ages 41-81, average age 63</li> <li>◦ Nearly all of Samoan ethnicity</li> <li>◦ Majority born in American Samoa</li> <li>◦ Majority married</li> <li>◦ Nearly all with religious affiliation</li> <li>◦ Half currently working, mostly for government, 37% retired</li> <li>◦ Majority non-smokers, 14% smoke</li> <li>◦ Majority no chest x-ray</li> <li>◦ 4% identify themselves as cancer patients or cancer survivors</li> <li>◦ 22% family history of cancer</li> <li>◦ Most heard about Clinics from TV, some from newspaper</li> </ul>	<ul style="list-style-type: none"> <li>◦ Ages 34-83, average age 55</li> <li>◦ Nearly all of Samoan ethnicity</li> <li>◦ 37% born in American Samoa, 37% born in Samoa, 12% other, 14% unknown</li> <li>◦ Nearly all married</li> <li>◦ Nearly all with religious affiliation</li> <li>◦ Majority currently employed, mostly for government</li> <li>◦ majority non-smokers, 17% smoke</li> <li>◦ 4% identify themselves as cancer patients or cancer survivors</li> <li>◦ 25% family history of cancer</li> <li>◦ Majority heard about Clinics from TV, less from newspaper and radio</li> </ul>

#### 4.6 Smoking Status and X-rays

Village group interviews indicated moderate levels of knowledge of lung cancer amongst men. So, presumably, some participants at the Men's Health Awareness Clinics attended primarily for lung cancer screening because they were billed as both a prostate and lung cancer event. Although lung cancer awareness and screening was discontinued after Clinic 3,<sup>37</sup> demographic forms continued to ask for smoking status.

Figure 17

Participant Smoking Status



Eighty-one (81) or 18% of Clinic participants indicated themselves as current smokers and 3 as having quit smoking. Of the 81 smokers in attendance, only half (40) requested and received a chest x-ray on the day of a Clinic. Twenty (20) participants identified themselves as non-smokers on demographic forms but then admitted to being current or past smokers when they learned this was necessary to receive chest x-ray vouchers the day of a Clinic. This leads us to believe that smoking status was underreported overall.

#### 4.7 Clinic Partners

<sup>37</sup> All Clinic participants were invited to listen to a presentation on lung cancer and other cancers caused by smoking at Clinics 1 and 2 and current and past smokers were offered vouchers for chest x-ray screening at Clinics 1-3. Vouchers for chest x-rays were distributed upon special request by individual attendees at Clinic 4 and 5.

4.7.1 Staffing and In-kind Contributions

Several partnerships were attempted to implement the 5 Men's Health Awareness Clinics. Table 17 shows which partners contributed staff to each Clinic. Table 18 indicates in-kind contributions towards the Clinics including most media coverage.

Table 17: Clinic Staffing

	Clinic 1 6/06	Clinic 2 9/06	Clinic 3 1/07	Clinic 4 5/07	Clinic 5 9/07
ASCCN members (Including ASCCC)	4	4	5	6	5
BCCEDP	2	1	1	0	0
DOH	8	2	4	2(\$)	8 (\$)
LBJ	2	3	3	3(\$)	4 (\$)
TIG	2	2	1	0	0
Tafuna Clinic	1	1	2	0	0
Other Volunteers*	0	0	2	0	0
<b>TOTAL</b>	<b>19</b>	<b>13</b>	<b>18</b>	<b>11</b>	<b>17</b>
Staff to Participant Ratio	1:4	1:10	1:7	1:4	1:5

Clinic nurses recruited through the DOH received compensation pay for serving at Clinics 1-3 and stipends for Clinics 4 and 5. The fact that nurses demanded pay for their services at later Clinics could be a sign that the Clinics were not sustainable with only volunteer help. The LBJ Hospital was supportive and media partners provided consistent free access to the public, but in-kind help cannot always be secured. Therefore, to Clinic activities should be 'institutionalized' into the routine of the LBJ as much as possible to avoid double paying staff.

**Table 18: In-Kind Donations**

Partner and Contribution	Clinic 1 6/06	Clinic 2 9/06	Clinic 3 1/07	Clinic 4 5/07	Clinic 5 9/07
LBJ Hospital Administration: Waved clinic fees, Equipment use Discounted screening, Reports					
Radio Stations: Announcements, Interviews	KHJK KNWJ KJAL	KHJK KNWJ	KHJK KSBS KNWJ	KHJK KNWJ	KHJK KSBS KNWJ
KVZK TV: Announcements, Interviews					
Malama TV: Announcements, Interviews					
Samoa News: Article					
Pago Print Shop: Discounted brochure and poster printing					
ASCCC/ASCCN: Fruit, Water, Flyers					
BCCRDP: Scale					
The Tribune: Discount print ads					

#### 4.7.2 Partnership Effectiveness

The majority of partnerships attempted were strengthened over the course of two years and 5 Clinic events. However, one key partnership never developed and another weakened.

Stronger partnerships were developed between the ASCCN and BCCEDP, LBJ Lab, LBJ Business Office and the ASCCC. The BCCEDP volunteered nurses who recorded participants' vitals (weight and blood pressure). Despite personal conflicts with the ASCCN Education Coordinator causing some BCCEDP staff to stop participating, better lines of communication were later developed with the ASCCN Assistant Program Director paving the way for future collaborations.

The LBJ Lab provided the phlebotomist to process the PSAs. This relationship was facilitated with formal written notification of up coming clinics to plan for the influx of PSA tests needing processing. Obtaining data from LBJ can be quite challenging but the partnership between ASCCN and the LBJ Lab staff allowed for follow-up and tracking of PSA results past the Clinic days.

Because Clinic participants received vouchers to cover the costs of PSA and x-ray screening tests, the partnership with the LBJ Business Office was vital. The relationship developed steadily between Clinics 2 ad 5 and more Business Office staff volunteered to assist with processing vouchers and general patient follow-up tasks.

Finally, partnering with the ASCCC brought more community involvement to the Men's Clinic Program and infused it with the volunteer spirit. The overlap of programmatic goals and objectives between the ASCCN and ASCCC created a synergistic relationship over the two years of Clinic

events. This led to collaboration in a variety of other activities outside of Men's Clinics including cancer patient education, financial assistance, and program planning and coordination.

The partnership between the ASCCN and the TIG began to deteriorate after Clinic 1. The TIG provided tobacco and cancer education materials and led half of the informational session focusing on lung cancer at Clinic 1. Despite repeated attempts, lack of communication and cooperation on the part of the TIG Program Manager caused the discontinuation of their participation. At Clinic 3 the ASCCN PI delivered TIG's information session and no lung cancer information was provided at Clinics 4 and 5.

As previously mentioned, chest x-rays for participants wishing to be screened for lung cancer were processed only for Clinic 1 and the service was discontinued after Clinic #3 due to a conflict between the ASCCN PI and LBJ's Chief Radiologist. This was by far the greatest 'lost opportunity' over the course of the Program especially because lung cancer is the most deadly cancer in American Samoa. It is uncertain if these personal issues can be overcome should future clinics wish to include lung cancer awareness and screening.

Just as partner needs and resources were never fully analyzed, a gap remains in assessing the partners experiences related to Clinic activities. There is a need to develop an effective method to gather feedback from partners after a pilot survey following Clinic 1 received no response. The ASCCN is committed to continuing research-based activities and sharing knowledge with partners; however, there is an obvious lack of motivation or non-recognition of incentive for partners to participate in events like the Men's Clinics. Some partners have a work overload limiting their ability to contribute to ASCCN activities, [but perhaps the biggest and most nebulous obstacle yet to be overcome are personal conflicts between ASCCN staff and individuals from partnering agencies.](#) Such conflicts, as well as restructuring internal administration, enabled the ASCCN to develop a better understanding institutional culture norms and environmental barriers to effective program coordination and execution.

#### 4.7.2.1 Lessons Learned from Attempted Partnerships

Being flexible and open to learning from the experience of implementing the Men's Health Clinics will allow the ASCCN to develop alternative strategies to achieve its goals. To this end, it is imperative to reflect on and grow from the following lessons learned contributed by the ASCCN Assistant Program Director:

*"Institutional/organizational partnerships are effective only if **key personnel** share a commitment to a common vision, work ethic and timetable to achieve goals. In American Samoa, personal relationships are key to fulfilling work*



*agreements, as there is little or no means of enforcing them. With this understanding, the ASCCN has an opportunity to create opportunities through which individuals recruited for training are also enlightened about the Network's goals and objectives, and presented with opportunities to further develop collaborative projects/partnerships. **Convenience, relevance, and simplicity** are key components of activities to promote participatory research training, research development, and subsequent recommendations for cancer interventions in the local community. Extending recruitment directly to community organizations, healthcare workers, and students, bypassing and thereby avoiding the barriers to effective partnership with government agencies and uninterested or uncooperative institutions will improve the ASCCN's sphere of influence."*

#### 4.8 Response to Media

The Program Calendar shows 17 radio interviews and 8 television interviews were done pertaining to prostate cancer, cancer screening and/or promotion of the Men's Health Awareness Clinics between April 2006 and October, 2007<sup>38</sup>.

Table 19: Radio and TV Interviews

Media Station	# Interviews
KHJK FM	5
KSBS FM	2
KNWJ FM	9
KJAL AM	1
Malama TV	6
KVZK TV	2

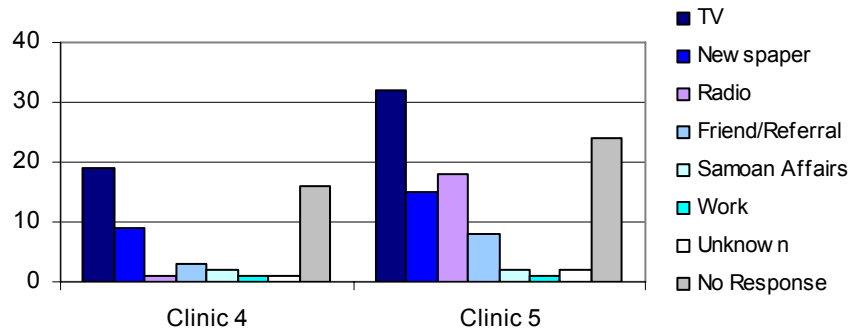
No tapes of radio or television interviews were available for evaluation. And, no analysis of the target group's media preferences was ever conducted so it is unknown whether the majority of men over 40 listen to KNWJ or watch Malama TV, the stations used most often. To remedy this, the open-ended question "Where did you hear about this Clinic?" was added to Demographic Surveys distributed at Clinics 4 and 5.

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<sup>38</sup> According to the ASCCN Education and Outreach Coordinator, between April, 2006 and February, 2007, a period containing Clinics 1, 2, and 3, 58 30-minute talk radio segments were aired on 4 radio stations and 2,371 30 second radio spots were aired on 3 radio stations on all cancer topics. It is unknown what proportion of this media directly mentioned prostate cancer or promoted attending Men's Clinics.

Figure 18

Primary Clinic Promotion Source



Clinic 4 (May, 2007) had the lowest attendance of all five Clinics. Compared to other Clinics, media promotion was limited going into Clinic 4 with no media activities happening in the two months prior. Figure 18 shows TV was the most powerful promotional media for both Clinic 4 and Clinic 5. But when radio interviews more than doubled and a daily spot was run on 3 stations, radio was influential in motivating Clinic 5 attendance (Table 20). Newspaper articles were also printed between Clinics 4 and 5 to keep prostate cancer in the minds of the community. By Clinic 5 some participants were also listing friends or doctors as referring them to the Clinics showing that even non-targeted groups were receiving the pro-prostate cancer screening message.

Table 20: Mass Media Activities 6 Weeks Prior to Each Clinic

Clinic	Clinic Attendance	Radio Interviews	Radio Spots	TV Interviews	Newspaper Articles	Newspaper Ads
1	53	3	0	2	0	1
2	135	3	1, 2xday	1	0	1
3	133	3	0	1	1	1
4	47	2	0	1	1	1
5	91	5	1, 2xday	1	0	1

Workplace Clinic promotion was present on a small scale via posters but this avenue of promotion and education has yet to be fully explored. Presentations to the OSA intended to reach all village Pulenu'u and tap them as disseminators of Clinic information. Although culturally important, this partnership was not sustained, nor did it produce the desired results. Clinics 1 and 2 were attended by the local leaders themselves--18 Pulenu'u and 5 Fono members--but these leaders failed to recruit village men to attend Clinics, evidenced by only 5 men out of 114 stating they had heard about the function through their Pulenu'u.

Taking a cue from the initial village group interview data, the use of prior Clinic participants as interview guests on radio and TV proved to be a creative participatory collaboration with the target group, but the use of actual cancer survivors as experts and advocates was not explored.

#### 4.9 Participant Feedback

Besides attendance and demographic information, Clinic participants were asked to complete a Participant Evaluation survey before leaving the Clinic event. These forms were handed out after informational sessions and before voucher distribution. However, finishing an Evaluation Survey was not required to receive a PSA or X-ray voucher resulting in most participants not completing feedback forms. The two largest Clinics, 2 and 3, also had the lowest Evaluation response due to the challenge of so many attendees in a small Conference Room eager to move from the Information Session to screening tests—ASCCN Staff forgot to hand out Evaluation forms to the majority of attendees at one of these Clinics. Overall, about half of all Clinic participants completed Evaluation forms.

Table 21: Clinic Participant Evaluation

	# Participants	# Completed Evaluations, %	# Written Comments, %
Clinic 1	53	36, 68%	1, 2%
Clinic 2	135	52, 39%	7, 5%
Clinic 3	133	30, 23%	12, 9%
Clinic 4	47	41, 87%	9, 19%
Clinic 5	91	82, 90%	42, 46%
<b>TOTAL</b>	<b>459</b>	<b>241, 49%</b>	<b>71, 15%</b>

Participant Evaluation Forms were in English and Samoan. Evaluation forms were changed after Clinic 2 when the Samoan version combined some items into fewer total questions compared to the English version making analysis of data more difficult. Yet, results show sizable changes in levels of knowledge about prostate cancer before and after the Clinics. Clinic 5 had the greatest number of participants completing evaluation forms indicating a truer picture of total attendance feedback and data from Clinic 5 also shows the greatest drop in ignorance about prostate cancer (Figure 19). Figure 20 shows that Clinic participants were consistently pleased with the event agreeing it was useful; they would attend similar events in the future, and they would encourage other men to attend also. The drop in the “usefulness” rating in Clinics 2 and 4 is difficult to explain, as the word ‘useful’ itself is open to interpretation.

Figure 19

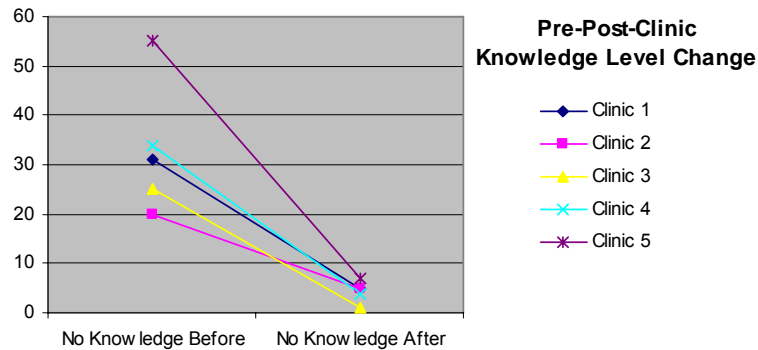
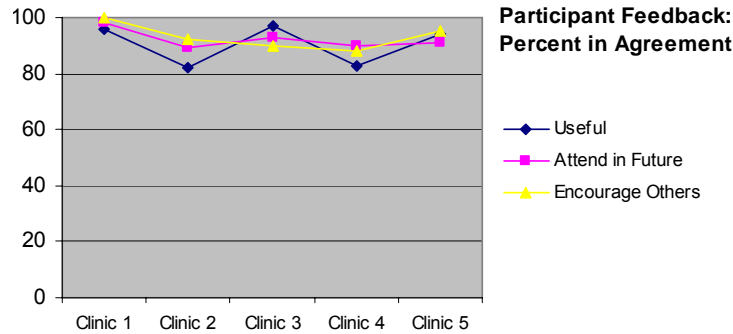


Figure 20



Participant Evaluation forms also asked for comments and suggestions on how to improve the Clinics. Comment responses increased over the course of the 5 Clinics. Suggestions provided over the 5 Clinics, with number of responses, included:

- (38) Have more Clinics, more often
- (10) Good job, thank you
- (7) Need more publicity for program and prostate cancer
- (5) Hire an urologist
- (4) Need more awareness and information, community outreach
- (4) Diversify Clinic locations: village, church, workplace
- (3) I will change my behavior
- (2) Have a separate Clinic just in English
- (2) Bigger room needed
- (2) Need pictures in information session
- (2) I want to know more

Participant recommendations strongly encourage the continuation of the Clinics. And comments reveal a key cancer disparity in American Samoa, that of lack of trained medical specialists on-island to diagnose and treat prostate cancer.

**Comments from Clinic Participants:**

- Clinic 1- *I will attend every clinic.*
- Clinic 2- *More workshop about cancer, we should have it more often for all men in the community.*
- Clinic 3- *I want to have a prostate examination to help me live a healthy life.*
- I need to check my prostate cancer also lung cancer and my blood pressure and sugar.*
- Prevention is much more important then treatment.*
- Clinic 4- *Keep doing this so we can live longer.*
- Have young people or students train for surgical of these sicknesses.*
- Clinic 5- *Pre-clinic advertising was good, processing was excellent, a good experience.*
- Keep up the radio and TV ads.*
- Please continue this deed of servitude.*
- Please recruit qualified doctors and proper equipment to care for this disease.*
- One should heed the teachings of this program.*
- This program should be offered continuously.*

4.10 Clinic Costs

An important aspect of process evaluation is determining cost per Clinic. Total expenses divided by number of participants can help determine if a program can be sustained. However, many

intangible costs are difficult if not impossible to calculate such as the increased health literacy Clinic participants gained that can improve overall quality of life.

Table 22: Clinic Costs

Clinic	Total ASCCN Cost	Partner Covered Costs	Number Participants	ASCCN Cost per Clinic Participant
1	\$127.90		53	\$2.41
2	\$535.00 <sup>39</sup>		135	\$3.96
3	\$70.90	PSAs (DOH)	133	\$0.53
4	\$424.25	PSAs (private donation)	47	\$9.03
5	\$977.50	PSAs (waived by LBJ)	91	\$10.74

Clinic 4 had the lowest attendance, and, logically, the lowest ASCCN cost per participant. The price of Clinic implementation rose sharply for Clinics 4 and 5 largely due to the need to stipend qualified nurses conducting glucose and blood pressure testing. This finding begs for a cost-benefit analysis of vitals checks as part of future prostate cancer screening clinics, keeping in mind their intangible benefits as well. Clinics also appeared to function largely upon the generosity of the DOH and LBJ. Although the ASCCN has no indication that this relationship may change, program sustainability stands a better chance if regular cancer screening events became institutionalized and part of the hospital budget and calendar. An alternative route may be to secure grant monies or support from local businesses or benefactors to support the continuation of the Clinics.

## 5. Process Evaluation Conclusions and Recommendations

### 5.1 Clinic Location and Activities

Over 2 years and 5 clinics, the planning and implementation of the clinic activities evolved to meet the demands of increasing numbers of attendees. The ASCCN secured the cooperation of several supporting agencies, developed media, materials and protocols, and gathered important demographic and clinical data from more than 400 men. The Clinic location may have been too small to accommodate the needs of 100+ attendees but feedback from participants reveals a need to continue the program. So, if possible, Clinic activities should continue on a regular basis as part of the LBJ hospital services—Clinic participation numbers would become more manageable, and the flow of activities more timely. Moving the Clinics from the LBJ Hospital is not advised due to the logistics of test processing and the added benefit of familiarizing men to Hospital locations and services they may be unaware of. However, informational outreach to villages, churches and workplaces should be explored and added to the program between Clinics.

A cost-benefit analysis of continuing the Vitals Checks at Clinics should be done to ensure better sustainability. If Clinics continue this service than this data (especially weight) should be collected and analyzed along with PSA scores, demographics, etc., for a more complete picture of men's

<sup>39</sup> Exact costs for Clinic 2 cannot be found, however the basic budget for each clinic was \$75 for tables/chairs rental; \$210 for newspaper ads; \$50 for refreshments; \$100 for nurse stipends = \$435.00

health. Incorporating other partners such as Diabetes Prevention would boost the value of Vitals checks and bridge participant understanding of the interrelatedness of several health issues with cancer. If Vitals Checks are to continue, recording the weight of participants would enable analysis to determine if a weight-adjusted PSA scale should be used.

## 5.2 Target Populations

Participatory mapping activities can be used to uncover the most opportune locations and people men are likely to feel motivated to visit for cancer information. This and other tools can be used to analyze specific KAB attributes and values of target population segments based on prostate cancer risk, work status, island location, etc. It is especially important to reach out to retired men and self-employed or private sector labor as they attended Clinics in lower numbers and prove more difficult to target than government workers. And, although the OSA was a weak partner in the Clinics, other 'leaders'—business, church—and cancer survivors should be approached for partnership in the future. These leaders and role models could become trained partners and featured in media and outreach presentations as 'early adopters' of desired attitudes and behaviors. This would also open the path to using theories of health behavior change in program planning and evaluation.<sup>40</sup> New partnerships should also be explored with on-island programs and experts related to nutrition and obesity as these were unaddressed risk factors at Clinics. Lastly, doctors can become a new target population as data showed they began ordering more PSAs but the reasons behind this need exploration.

### Research Recommendations:

- Conduct participatory target population analysis of KAB, values and environmental factors to plan Clinic outreach and develop segment profiles for more tailored media and interventions.
- Conduct a cost-benefit analysis with Clinic providers and participants to determine the value and potential sustainability of vitals checks at Clinics. If continued, gather vitals data to compare with demographics and PSA scores.

### Programming Recommendations:

- Host Men's Clinics on a monthly basis as part of LBJ services in order to have manageable numbers per Clinic and sustained screening year round.
- Explore other partnerships with relevant health agencies and new secondary target populations with individuals of influence to the primary target population.
- Expand outreach and information from a focus on age and family history to include diet related risk and protective factors.

## 5.3 Demographic Data and Participant Evaluation Forms

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<sup>40</sup> Namely Diffusion of Innovations to assess behavior change in populations and Trans-theoretical (Stages of Change) to measure individual change.

A fair amount of demographic data was collected from Clinic participants but it was challenging and time-consuming to match PSA results with demographics for research and evaluation purposes. Demographic information was not analyzed after Clinics so no adjustments were made in targeting 'underserved' sub-populations during the program period. Additional demographics related to education and income level would have been helpful in developing segment profiles. In light of no organized Cancer Registry in the Territory, the ASCCN data on Clinic participant cancer status and family history of cancer should be reorganized into a separate database that can be continually added to and inspire local research. Local demographic data can be used to compare cancer rates and trends in other locations and to other known high-risk groups.

Demographic surveys and Participant Evaluation forms should be standardized for future Clinics to allow for better data analysis. Participant Evaluation forms should be changed to include pre- and post-intervention KAB questions. And all data collection tools need to be translated into Samoan in a format that matches the English version and in language that is understandable to participants of no higher than 8<sup>th</sup> grade English language proficiency. Finally, all Demographic and Evaluation forms should be completed before participant incentives (vouchers) are distributed to improve response rates.

**Research Recommendations:**

- Create a master database of all ASCCN activity participant demographics.
- Create a separate database of cancer status and family history of cancer details to facilitate the formation of a Territorial Cancer Registry.

**Programming Recommendations:**

- Develop standardized Demographic Surveys which include education and income level.
- Develop KAB pre-/post-intervention surveys for all program activities.
- Use demographic data to tailor interventions and media.
- Require all participants to complete demographic and evaluation forms before receiving incentives.

#### 5.4 PSA Results

Having access to Clinic participants' PSA scores was key to analyzing a deeper impact of the program beyond increased knowledge and men screening numbers. Whenever possible a standardized PSA analysis scale should be used throughout a program to allow for stronger conclusions. Notification of PSA results was problematic when men could not be reached via phone and messages were left with wives and on answering machines. The ASCCN followed up with several men diagnosed with prostate cancer for a documentary film project, but several men with moderate or high PSA scores from Clinics have not been followed up on.

**Research Recommendations:**

- Follow-up on all moderate and high PSA participants and determine profiles.
- Create a database of PSA scores for future analysis if programs continue or change.
- Compare weight-adjusted or age-adjusted PSA analysis scale scores to other scales in use at LBJ.
- Inquire with individual doctors as to what prompts them to order a PSA and what scale of analysis they use.

**Programming Recommendations:**

- Develop alternative methods of notifying Clinic participants of results to increase uptake of retesting or yearly testing and ensure confidentiality.
- Target doctors for programming to standardize information and testing given to patients.

Final Process Evaluation Rating	
Strategies fulfilled objectives	☆☆☆
Program implemented as planned	☆☆☆
Baseline data used to tailor activities	☆☆☆
Data gathered from participants	☆☆☆
Data gathered from partners	☆☆☆



## 6. Impact Evaluation

Clinic 5 was held in September 2007, after which no prostate cancer awareness and screening programs have taken place in American Samoa. In May 2008, a Program Evaluation Consultant joined the ASCCN and proposed a Men's Health Clinic Impact Evaluation event take place to determine the extent to which program objectives made a lasting impact on Clinic participants via a variety of post-intervention measures. Specifically, Impact Evaluation aimed to measure post-intervention knowledge of prostate cancer, develop a more detailed profile of Samoan men as a target group for future interventions and media campaigns, and determine if and how Clinic activities should be sustained.

### 6.1 Impact Evaluation Recruitment

Because the target population was not actively involved in the planning and implementation of the Men's Health Clinics it was especially important to create an opportunity for Clinic participants to provide the ASCCN with open feedback after the intervention. To this end a "Focus Group Event" was held for Clinic participants on June 21, 2008. The event was held at a hotel conference room and attendees who completed all surveys and participated in the focus group discussion were provided a lunch and a \$20 honorarium. Men were recruited for the event based on the following characteristics:

Table 23: Focus Group Categories

Attended at least 1 Clinic				
Samoan Ethnicity				
High PSA (≥10.00)	Moderate PSA (3.00-9.99)	Repeat PSA within Program Period regardless of score	Low PSA (≤2.99) Under age 50, 50 and over	No PSA

A list of 147 Clinic Participants fitting the categories above was generated and men were invited via telephone. ASCCN staff attempted to contact all participants with High, Moderate, Repeat and No PSAs, while a random sample of 30 men under age 50 with a Low PSA and 30 men age 50 or above with a Low PSA were called\*. Ten percent (10%) of those invited attended the event.

Table 24: Focus Group Recruitment

Category	Number Eligible	Number Attended
High PSA	9	1
Moderate PSA	25	3
Repeat PSA	34	4
Low PSA, under 50	30*	3
Low PSA, 50+	30*	3
No PSA	19	1
<b>TOTAL</b>	<b>147</b>	<b>15 (10%)</b>

## 6.2 Impact Evaluation Instruments

Four (4) survey instruments and 18 focus group questions, both in English and Samoan,<sup>41</sup> were developed to gather information from participants at the 3 hour event. First, the ASCCN Demographic Survey used that the Men's Clinics was revised for clarity in wording and layout, and education level was added. A Prostate Cancer Knowledge Survey Containing 13 items was developed based on information provided to all Clinic participants in Informational Sessions (PowerPoint presentation) and in an ASCCN brochure distributed at Clinics. Two frequently asked questions/misconceptions about prostate cancer, gleaned from process evaluation activities, were also included in the Knowledge Survey with a *true/false* format. This survey, along with analysis of frequently asked questions during Clinics and at the Focus Group Event, would serve as a post-intervention knowledge gain and retention measurement.

A third instrument was developed to explore notions first uncovered in the initial village group interviews—a Health Belief Survey. Because no theory of health behavior change was employed in the planning of this program and village groups often stated God and 'powerful others' (Doctors and Samoan *taulasea* prescribing *fofo*) played key roles in their health,<sup>42</sup> the Multidimensional Health Locus of Control (HLOC) Instrument<sup>43</sup> was adapted and used to profile Clinic participants in more detail. The HLOC instrument is an 18 item six-point scale (strongly disagree to strongly agree) survey developed by Dr. Kenneth A. Wallston that assesses an individual's beliefs as to where the roots of control over their health lie: internally, with 'powerful others', or are left up to chance. Additionally, Wallston has developed a 6 item 'God Locus of Control' instrument that can be included in the original survey. The original combined instrument containing 24 items was reduced to a pilot survey with 16 items (4 items for each 'Locus') and a reduced to 2 point *agree/disagree* scale<sup>44</sup>. Finally, a participant evaluation form was developed specific to this event.

**None of the instruments were formally pre-tested with the target group; they were only informally reviewed by Focus Group Facilitators.** Pre-testing instruments would no doubt have improved their clarity.

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<sup>41</sup> Translation of all instruments and the focus group questions was carried out by ASCCN partners the American Samoa Community College Department of Samoan Studies. The bilingual principle translator worked from English versions, translated them into Samoan and then circulated the translations and English versions to several colleagues for comment and revision before submitting final translations to ASCCN. Back-translations by third parties were planned but not carried out.

<sup>42</sup> Researchers have reported that American Samoans believe there is not much they can do to prevent cancer and that if they displease God they are likely to suffer in some way—Mishra, et al. (2000) Knowledge of and Attitudes about Cancer among American Samoans. *Cancer Detection and Prevention*, 24(2): 186-195.

<sup>43</sup> See <http://www.vanderbilt.edu/nursing/kwallston/mhlcscscales.htm>

<sup>44</sup> McCallum et al, tested 6 point response and 2 point response versions of HLOC and arrived at similar results when classification of subjects was the goal. McCallum, et al. (1988) Comparison of Response Formats for Multidimensional Health Locus of Control Scales: Six Levels versus Two Levels. *Journal of Personality Assessment*. 52(4) 732-736.

### 6.3 Focus Group Questions

Eighteen (18) questions were developed for what became 3 focus groups: Group 1- High and Moderate PSAs; Group 2- Repeat PSA's; and, Group 3- Low PSAs.<sup>45</sup> Questions were divided into 4 sets: Values and Health Perceptions, Health-seeking behaviors and Motivation for Attending a Clinic, Evaluation of Clinics and follow-up services, and Perceptions of ASCCN Slogan "Screen for cancer, Find the cancer, beat the cancer." Focus groups were male facilitated and either audio or video taped. A short question and answer period with the ASCCN PI followed the Focus Group Discussions so as to keep the discussion solely based on participant views. Nearly all participants spoke entirely in Samoan. Transcripts of group discussions and the question and answer session were completed in English and used for this report's analysis.

### 6.4 Focus Group Participant Demographics

There were 15 Focus Group participants ages 41-72, with an average age of 59. All were of Samoan ethnicity with 2/3 born in Samoa and 1/3 in American Samoa. Fourteen (14) were married, and one widowed and 93% (14) sited a religious affiliation. Fifty-three percent (53%) were employed, 33% retired and 14% not employed. The majority (53%) had at most a secondary education, 33% had a 2 year college degree, 1 had a 4 year college degree, and 1 had an advanced degree.<sup>46</sup> Most were non-smokers (73%) with 1/3 stated they had a chest x-ray for lung cancer screening in the past.

Participants were also asked if they had ever had a PSA test to screen for prostate cancer. Although having a PSA was a requirement for recruitment to the event 20% said they had not had a PSA and 20% did not respond to the question. This is concerning; perhaps the participants do not recall the name of the screening test they had or the question may have not been translated into Samoan clearly. Finally, 3 participants (20%) were cancer survivors and 27% noted a family history of cancer.

### 6.5 Knowledge Survey Results

All 15 participants completed all items on the Prostate Cancer Knowledge Survey.

- 100% knew that if found early, prostate cancer can be cured
- 93% knew what cancer was, and having a male family member with prostate cancer put them at higher risk
- 86% knew symptoms of prostate cancer
- 83% knew that all men age 50+ should be screen for prostate cancer
- 80% knew that drinking and high cholesterol are prostate cancer risk factors

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<sup>45</sup> One 'No PSA' participant showed up at the Focus Group Event but he could not stay for the entire focus Group discussion so he elected to join the Low PSAs group.

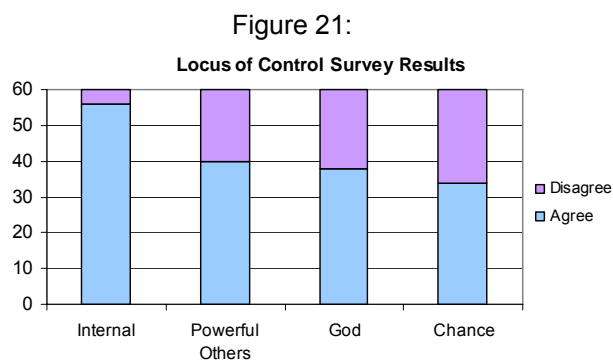
<sup>46</sup> Interestingly, the participant with the highest education level was also the one who had attended a Clinic but not received a PSA test.

- 73% knew that early prostate cancer may not exhibit symptoms, and that screening tests do not reveal cancer, but determine if more tests are needed
- 67% recalled that a PSA is a screening test for prostate cancer
- 60% knew that only men can have prostate cancer, and believed that men age 50+ should be screened for prostate cancer every 5 years
- 53% believed that prostate cancer can be treated in American Samoa
- 40% knew that prostate cancer is not sexually transmitted

These results show that even amongst men who have attended a Prostate Cancer Awareness and Screening Clinic some misconceptions still exist, namely that women can have prostate cancer and the disease can be sexually transmitted. Similar to the Demographic Survey results, only 67% knew that PSA was the screening test for prostate cancer even though all attendees had received at least one PSA in the past 2 years. Fifty-three percent (53%) believed that prostate cancer could be treated in American Samoa when in fact hospital treatment must take place off-island.<sup>47</sup>

#### 6.6 Health Beliefs (Health Locus of Control) Survey Results

Like the Knowledge Survey, all 15 participants completed all items on the Health beliefs Survey. Results aimed to paint a broad picture of the target groups' sense of control over their own health. The total number of participants in agreement with statements expressing the four domains of control was tallied to create Figure 21.



Health behavior change programs hope to see high levels of "Internal" control over the other categories as this usually results in quicker achievement of desired health behaviors when environmental factors are amenable to change. Thus, it was quite encouraging to see that the great majority of men felt that they themselves are ultimately in control of their current and future health status. A fair amount of control was vested in "powerful others"<sup>48</sup> which complements what some village group interviewees said about reliance on local herbal medicine or Doctors because cancer

<sup>47</sup> This is a major environmental obstacle the ASCCN and ASCCC seek to facilitate via future research into cancer patient navigation and support in Hawaii and other locations.

<sup>48</sup> "Powerful others" questions mostly focused on faith in "Western" doctors, but some questions could be read as pertaining also to "Samoan doctors".

was a new phenomenon individuals do not understand well. It is often mentioned in conversations and published articles have stated that church leaders believe and spread the notion that cancer is a palagi (white man's) disease "about which nothing can be done" because it is "God's will".<sup>49</sup> However, results from this small health belief survey mirror those found by Aitaoto, et al (2007) who found that a religion-based fatalism was a minority belief. [If Samoan men believe they are in control of their health, more in depth analysis should be conducted into their values and perception of health choices as well as environmental factors that can persuade healthful behaviors.](#)

## 6.7 Focus Group Results

Audio and video tapes of the focus group discussions were difficult to hear at times when writing transcriptions. The results below summarize 2 of the 3 focus group discussions as one transcript was pending at the time of this report.

### 6.7.1 Values and Health Perceptions

Participants felt the **ideal Samoan man** is happy and has a positive attitude. He is very healthy because he watches his diet, is always active and takes care of himself. The ideal Samoan man is big and strong physically, mentally and morally. Sometimes he will keep things to himself out of pride and fear of appearing to be a weak person. He is both an individual and devoted to the culture and God—he follows the traditions and puts God before anything else. Finally, he is smart in putting ideas together and he can speak and present himself well.

**A healthy man** was one who loves to exercise and consistently eats a balanced meal. He does not drink alcohol or smoke. He is happy all the time and does not worry.

**Most Samoan men are not healthy today** due to their unhealthy diet. Past generations were healthy and strong because they ate fish and

#### Focus Group Quotes

*Our people are one of the strongest people in the world, specifically Samoan men. We grow up well developed physically and morally.*

*...people don't know if they have cancer or not because of their pride, [Samoan men] hide it from everyone else because they don't want people to view them as a weak person.*

*During their 50s and up they just lose interest in activities that require exercise because they become old and being healthy is quite a hassle for them.*

*My wife is always there for me. I believe that through all the hardship that a man will go through his wife will always be by his side.*

*Doctors know you better and the situation you are in, they advise me to walk everyday to be healthy again and it really works!*

*Although the hospital are trying their best I don't fully trust their information. The doctors are not setting examples. They say one thing and do something else.*

*I am concerned about my diet, no matter how hard I try to stick to it something will always bring me down.*

<sup>49</sup> See Aitaoto, et al. (2007) Cultural Considerations in Developing Church-based Programs to Reduce Cancer health Disparities Among Samoans. *Ethnicity and Health*. 12(4): 381-400.

local crops and walked everywhere. Today, only men in their 20s and 30s are healthy because they stay active working, taking care of families and are involved in church activities. But from their 40s onward it was felt that Samoan men stay strong but are not healthy because they eat whatever we can get even if it is fat filled food.

**Men were most influenced by and trusted**

their wives' and families, their pastors, and God. To a lesser extend they look to doctors and friends.

**The most influential and trusted sources of health information** were doctors, but the information they provide is not always fully embraced.

*I have tried almost all the Samoan herbal medicine and other medicines, still I feel the same. So now when I am sick I go for a walk 2 times a day.*

*I will pick up my machete and head straight to my plantation and clean it up until I get a good sweat and burn the sickness out.*

*I believe men did not attend [Clinics] because they fear to know the truth. To them it is better to leave things unknown.*

*My health is more important to me than money because you can always find ways to earn money, but as for your health you only get one shot. So, yes, I will continue screening.*

*The Clinic really helped me in terms of being aware of cancer and other sickness on island.*

**The health issues of most concern to men** were sicknesses that trigger other illnesses, diet, the competency of doctors, and stress. It was felt if you screen for cancer or diabetes you will only find other diseases in you. Men faced difficulties sticking to a diet and were worried about 'chemicals' contained in imported foods. Some group members felt that doctor prescribed medicine only made them feel sicker, while Samoan fofu cures them. And programs to relieve stress would be more valuable than giving out medicine.

#### 6.7.2 Health-seeking Behaviors

**When sick men usually** saw a Western doctor or traditional Samoan doctor and were faithful in taking medicine prescribed to them. However, several men felt herbal medicines are ineffective and that exercise—walking or plantation labor—could 'burn out the sickness.' Praying for 'God's grace' in times for sickness was also important.

**Information about prostate cancer** came from the hospital, from the newspaper and TV.

**Men attended a Clinic because** they were concerned about their health and curious about this new type of cancer they were unfamiliar with. They were motivated to attend a Clinic to understand more about cancer and to take advantage of the free vouchers. One man said he was forced to attend a Clinic by his Pulenu'u. Another came primarily to check for diabetes.

**If the Clinics with free vouchers ended** participants unanimously agreed they would continue to be screened in order to spend more 'disease-free' time with their families and that paying for screening would be money well spent.

Focus group participants believed that **other men did not join the Clinics** out of fear of being diagnosed or they are not concerned about their health. They felt most men simply do not think about their health or the future of their families, or they had other things to do the day of the Clinic.

Participants felt the greatest **strength of the Clinics** was the increased understanding about prostate cancer and other sicknesses they gained. The **Clinics could have been improved** by being held more frequently, and more time, space, doctors and screening equipment is needed.



Focus Group Discussions

#### 6.8 Focus Group Facilitators' Reflections

Because Focus Groups are an evolving methodology for the ASCCN, the 3 male Facilitators were asked to reflect on their experience of leading group discussions. Facilitators felt that overall the discussion flowed freely and participants felt comfortable disclosing in the male-only atmosphere. Some participants seem very well-informed but many still lacked a basic understanding of prostate cancer symptoms, reasons for screening, what screening results meant, etc.

The "warm-up" question—*Describe the ideal Samoan man*—proved to be a good way to get the men talking. Some questions elicited the same response from several men in the group but most

questions allowed for a variety of experiences and opinions to be shared, thereby adding the groups' overall understanding of prostate cancer. One question in particular was difficult for participants to answer—*Who do you think should screen for prostate cancer?* Participants felt it was not their place to decide who or tell other people they should be screened.

Group dynamics helped focus group members open up. One group was more or less peers in age and social standing. The other two groups were more diverse so different members were asked to respond to different questions first and members who had previously been diagnosed and treated for cancer helped encourage everyone's participation when they shared their personal experiences. All group members respectfully acknowledged each other when speaking and listening.

The most challenging aspects of facilitating the discussions were refraining from expanding on or explaining questions so as to not lead the discussion. Finally, several participants expressed their thanks for the Clinics and dedication to having regular PSA screening tests.



ASCCN, PI

#### 6.9 Participant Questions

The Focus Group Discussions were followed by a short question and answer period with the ASCCN PI. Participants continued to ask basic questions about prostate cancer symptoms and how they can be distinguished from symptoms of other illnesses or diseases and how that can avoid being diagnosed with any cancer. There was concern about the hereditary nature of prostate cancer. And participants asked when the next clinic would be held.

#### 6.10 Participant Evaluation Results

All Focus Group participants completed a 5 item Evaluation survey with nearly unanimous positive results:

- 93% felt the event was enjoyable
- 100% found the surveys understandable
- 100% felt the group discussion was interesting
- 100% said they learned something new at the event
- and, 100% said they would attend similar future events

Participants were also able to provide written comments and suggestions. These included:

- events should explain more about cancer (5)
- continue to have more awareness programs, more often (4)
- host more small group discussions like this one (2)
- continue information via local media (1)



- make sure survey questions are clear and understandable (1)

## 7. Impact Evaluation Conclusions and Recommendations

The purpose of Impact Evaluation is to determine if and how well objectives fulfilled program goals through post-intervention measures with target populations. This impact evaluation focused only on Clinic participants and no assessment of Clinic partners was included.

### 7.1 Evaluation Instruments

Due to time constraints and reliance on partners, translations of instruments were not done as planned nor were surveys pre-tested. All surveys should have been back translated (English to Samoan and then a second party translate Samoan back to English) to match for consistency of meaning. All surveys and focus group questions should have been pre-tested with a portion of the target population to determine clarity and ideal format. And no instruments or methods were used to assess partners experience in the program; therefore the secondary objective—to strengthen collaborations with other cancer education and outreach groups to provide more comprehensive services and sustain program activities—cannot be addressed.

More analysis of the Health Belief Survey results is needed in terms of matching individual participants' scores with demographic details. And repeating the survey in its original form or the adapted survey with a 6 point scale (strongly disagree to strongly agree) could provide further evidence for using the shortened version if results remained consistent. Then the Health Belief Survey could be administered to other target populations and data used to inform the use of additional health behavior change models and theories.

Knowledge surveys can be revised into pre- and post-intervention measurements. Whenever possible allow for open ended responses and include "I don't know" options. Knowledge Survey results show that men do not recall the name of the screening test for prostate cancer and still hold several misconceptions about the disease.

### Research Recommendations:

- Back translate and retest all instruments used at the Focus Group Event to determine validity and reliability.
- Conduct retests of different versions of the Health Belief Survey with the same target group. Use the most reliable and feasible version with other target populations.
- Adapt knowledge surveys to be used as pre- and post-intervention measures. Include additional questions about attitudes, behaviors and values based on focus group data.

#### Programming Recommendations:

- Continue to collect Demographic data and administer KAB and Health belief surveys at all ASCCN activities.
- Information and outreach campaigns should aim to debunk common misconceptions related to cancer.

#### 7.2 Focus Group Results

The results of initial village group interviews and final program focus group discussions should be used to tailor interventions to the specific KAB, values and environments of target populations. Results should also be shared with health care providers to inform their practice. A few interesting results to focus on include the frequent mention of diet and exercise linked to disease, use of both Western and Samoan medicine for treating illness, and wives and pastors cited as the most trusted and influential sources of information for this target population. Also, TV and newspapers were again mentioned as the most popular media. And, participants felt that other men did not attend Clinics because they are afraid of cancer and do not think of their health as impacting their family's future— notions also expressed at village group interviews. Lastly, a more thorough Focus Group Facilitator briefing should take place at future events to encourage and provide guidelines in asking impromptu follow-up questions when needed to add to the discussion.

#### Research Recommendations:

- Secure good audio equipment for future Focus Group events to ensure clearer, more complete transcripts.
- Continue to use Samoan male Focus Group facilitators for male-focused topics.

#### Programming Recommendations:

- Partner with diet and exercise programs for future cancer prevention programs.
- Explore possibilities to target and train wives of the target group and Pastors as awareness and knowledge raising partners.
- Media and outreach campaigns should address men's fears surrounding cancer and stress Samoan men's values of maintaining strength and caring for the family.

#### 7.3 Program Activity Sustainability

Men continue to ask basic questions about prostate cancer so a sustained media and community outreach program is needed to move them from awareness and knowledge building stages to behavior adoption. Clinic activities are not necessary as long as men are aware of prostate cancer and the need for screening which is readily available any time at the LBJ Hospital. Focus Group men unanimously felt that vouchers are not needed to motivate them to continue screening. Instead, more intangible incentives can be stressed based on men's values. If Clinics are offered

again, they should be on a regular, monthly, basis at the hospital to overcome shortages in time, space, and staff. Finally, sustainability of program effects also lies in the Clinic attendees themselves becoming program partners for media and outreach campaigns at times and locations more men can be reached.

**Research Recommendations:**

- Analyze the feasibility of continuing Clinics on a monthly basis at LBJ.
- Conduct participatory research tools with men to determine the best times and places to conduct outreach activities.

**Programming Recommendations:**

- Create more informational products and host events focusing on symptoms, prevention, and misconceptions.

Final Impact Evaluation Rating	
Assess post-intervention knowledge of prostate cancer	☆☆☆
Develop a more detailed profile of Samoan men as a target group for future interventions and media campaigns	☆☆☆
Determine if and how Clinic activities should be sustained	☆☆☆
Fulfill ASCCN Goal: Facilitate the development and implementation of education and awareness programs in communities to increase cancer awareness among American Samoans.	☆☆☆