U.S. Affiliated Pacific Island Nations

American Samoa – CNMI – Guam – Palau – RMI - FSM

PACIFIC REGIONAL
COMPREHENSIVE CANCER CONTROL PLAN
2012-2017

Revised May, 2015
FORWARD MESSAGE

Talofa, Hafa Adai, Tirow, lakwe, Alii, Ran Annim, Len Wo, Kaselehia, Mogethin, Hello!

On behalf of the Cancer Council of the Pacific Islands (CCPI) and the Pacific Comprehensive Cancer Control Coalition, we are pleased to present the updated Pacific Regional Comprehensive Cancer Control (RCCC) Plan for 2012-2017.

Cancer places a particularly heavy burden on our individual small countries and states; chronic disease places an even bigger burden, such that the Pacific Islands Health Officer Association (PIHOA) declared a Regional State of Emergency due to Non-Communicable Diseases (NCD) on May 25, 2010. Our populations and absolute numbers of cancer are relatively small compared to the United States, but because of the many challenges that exist in our jurisdictions’ economic and health care infrastructure, the burden is high. Given the high rates of obesity in children and adults and tobacco use among youth, we anticipate that the NCD and cancer burden will increase drastically while our health systems remain inadequately prepared to address this NCD burden.

Awareness and advocacy about cancer-related issues was brought to U.S. Affiliated Pacific Island (USAPI) Regional and U.S. National attention starting in the mid-1990s. After several years of advocacy by dedicated physicians and public health leaders in the USAPI and Hawaii, the Pacific Cancer Initiative was started in 2002. With funding from the NCI National Center to Reduce Cancer Health Disparities and the NIH National Center on Minority Health and Health Disparities, assistance from Papa Ola Lokahi and ‘Imi Hale (who held an NCI Special Populations Network grant) and under the leadership of Dr. Neal Palafox, an indigenous advisory council was formed, The Cancer Council of the Pacific Islands (CCPI). Together with the University of Hawaii Department of Family Medicine and Community Health, also under the direction of Dr. Neal Palafox, Cancer Needs Assessments were performed in 2002. From there, preliminary regional and jurisdiction-specific priorities were formed. In 2004, the University of Hawaii, designated as the bona fide agent for 5 of 6 USAPI, received a National Comprehensive Cancer Control Planning grant; Palau received their own NCCCP grant. In 2005, a feasibility study for a regional cancer registry was conducted. In 2007, the CCPI developed the first RCCC plan, designed as an adjunct to each jurisdictions’ NCCCP implementation funding. As part of the RCCC plan, in 2011 a region-wide assessment on cervical cancer prevention (immunization, screening) was conducted to evaluate and improve cervical cancer control efforts throughout the region.

The original Pacific Regional CCC Plan was developed in conjunction with the individual CCC plans for the three Flag Territories, and the three Freely Associated States (FAS). The Flag Territories are American Samoa, Guam and the Commonwealth of the Northern Mariana Islands (CNMI). The Freely Associated States include the Republic of the Marshall Islands (RMI), and the Republic of Belau (also known as Palau) and the Federated States of Micronesia (FSM) which consists of Yap,
Pohnpei, Kosrae, and Chuuk States. Each of these jurisdictions has developed their own CCC plan – 9 in total – to address their specific needs. With the increase NCD burden and emphasis on collaboration with other NCD programs, the 2012-2017 RCCC Plan was updated and developed with several regional NCD partners and initiatives (tobacco, diabetes, regional surveillance, quality assurance) and includes collaborative objectives and strategies in several goal areas.

The Pacific Regional Cancer plan speaks to maintaining a U.S. Affiliated Pacific regional format for discussing and addressing cancer. The Pacific Regional Cancer Plan is a long-term plan, designed to be coordinated in conjunction with Pacific Islands Health Officers Association (PIHOA) efforts in improving public health infrastructure and policies within the USAPI. The Regional efforts support jurisdiction efforts by leveraging resources, conducting assessments and training, providing technical assistance and some degree of uniformity in addressing cross-cutting issues that impact the resource-limited USAPI countries and jurisdictions.

The 2012-2017 Plan aims to work collaboratively to support coordinated local efforts in health promotion messaging, education, support of evidence-based policies in cancer prevention, cancer screening, palliation and patient navigation programs for the U.S. Affiliated Pacific, develop regional policies regarding utilization of cancer data, provide regional technical support for all parts of the comprehensive cancer plan, and expands regional Cancer advocacy at the U.S. National level. Coordinated assessments will also be conducted over the next five years to determine the feasibility of increasing in-region capacity to treat common cancers. While not explicitly stated in the plan, the Regional cancer programs and partners continue to work with PIHOA and the Regional lab to improve the capacity for in-region chronic disease testing and diagnostic capacity. In addition to the jurisdiction-specific and Regional CCC projects, there is a CDC National Program of Cancer Registries (NPCR)-funded Pacific Regional Central Cancer Registry (PRCCR), which has established a cancer registry in each jurisdiction and the region. Over time, as health information systems and data quality improves, the Registry data will allow for more robust analysis of cancer risk factors (in cancer patients), co-morbidities, long-term efficacy of screening and immunization programs (Hepatitis B and Human Papilloma Virus), mortality and survivorship data. The PRCCR is linked with CDC-funded Breast and Cervical Cancer Early Detection Programs in Guam, CNMI, American Samoa and Palau, and with cervical cancer screening programs in the FSM and RMI. Cancer registrars in each jurisdiction are integral parts of their CCC programs. PRCCR will continue to participate with PIHOA and other partners to improve data quality and mortality reporting.

A Regional approach to Comprehensive Cancer Control has borne some successes in cancer registration, palliative care curriculum, cervical cancer screening, community-CCC program partnerships and assessing the impact of community-driven projects and programs on controlling cancer along the continuum. However, many barriers and challenges remain. We are thankful to the Centers for Disease Control and Prevention for supporting our effort and also thankful to the many other U.S. CCC National Partners who have contributed resources and talent to the overall Pacific Cancer Initiative and Pacific Cancer Coalition. Newer international partners (Secretariat of the
Pacific Communities, World Health Organization, Pacific Monitoring Alliance for NCD Action) continue to be invaluable in assisting all of U.S. in addressing the NCD issue in a more coordinated fashion. The largest credit goes to the people of each USAPI jurisdiction who have come together over the past ten years, struggled and worked hard to create community-driven CCC plans that incorporate each location’s community strengths, structure and culture. Through this CCC process, there is renewed interest in communication and collaboration among the many sectors and partners that can impact individual and population health. Through this CCC process, momentum is gaining, support is broadening and we have developed plans that serve to guide present and future leadership for our jurisdictions and the Region.

We thank you for your interest in the U.S. Affiliated Pacific Island jurisdictions and welcome your support and collaboration in helping U.S. on our journey toward our “A Cancer-Free Pacific”.

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The content of these plans are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.
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USAPI Regional Vision: A cancer-free Pacific

Overview
The U.S.-Associated Pacific Islands (USAPI) consists of three Flag Territories, and three Freely Associated States (FAS). The Flag Territories are American Samoa, Guam and the Commonwealth of the Northern Mariana Islands (CNMI). The Freely Associated States include the Federated States of Micronesia (FSM) which consists of Yap, Pohnpei, Kosrae, Chuuk; the Republic of the Marshall Islands (RMI), and the Republic of Belau (also known as Palau) (ROB). The population of the USAPI is approximately 445,000 people with 176,000 of the inhabitants living in the FAS. The expanse of the USAPI is twice the size of the continental United States and crosses 5 time zones and the International Date Line.

American Samoa has been a territory of the United States since 1900 and Guam was annexed as possession of the United States in 1898. In 1947, under a United Nations Mandate, the United States took responsibility for the health education and welfare of the U.S. Trust Territories of the Pacific Islands (TTPI) which included what are now the FAS and the CNMI. The FAS countries are full members of the United Nations and are sovereign except for military matters. They share a treaty with the U.S. Government under separate Compacts of Free Association that qualify them to participate in specified Federal programs including U.S. Health and Education programs.

As former colonies of the United States, the USAPI have become heavily dependent on U.S. assistance. The current political relationship of the USAPI to the U.S. Government defines the level
of political, economic, and grant support from the U.S. The citizens of the Flag Territories are classified as U.S. citizens, however they cannot vote in U.S. presidential elections. FAS citizens are classified as non-immigrants, cannot vote in U.S. elections, but can freely immigrate to the U.S. to work without a VISA. Guam and American Samoa have non-voting representatives to the U.S. Congress. The CNMI has a representative in Washington DC who is not a Congressional member. The FAS have no representatives in Washington. The citizens of the Flag Territories qualify for Medicare, Medicaid benefits, and all U.S. Federal Grants. The citizens of the FAS do not qualify for Medicare or Medicaid, and can access those U.S. Federal Grants where legislation about that grant defines their eligibility.

Each of the USAPI has unique cultures, histories and languages. The economic, health and political development of each jurisdiction of the USAPI are related but not similar. There are significant health disparities between the U.S. and the Flag territories and appalling health and education disparities between the U.S. and the FAS. The HRSA funded Institute of Medicine (IOM) report in 1998 entitled “Pacific Partnerships for Health”, explained that the life expectancies among FAS countries is 9-12 years less than the U.S., and that infant mortality rates are 4-6 times that of the U.S.. UNICEF has designated 5 countries in the Pacific which need special attention because of malnutrition—two of these countries are in the FAS. Tuberculosis and Hansen’s disease are endemic in parts of the FSM and the RMI.

**USAPI Per Capita Total Expenditure on Health**
*(in Purchasing Power Parity (PPP) terms, International $ for FSM, RMI, AS, GU, USA) (in unadjusted USD for CNMI and Palau)*

<table>
<thead>
<tr>
<th>Country</th>
<th>Per Capita Total Expenditure on Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Am Samoa</td>
<td>$500</td>
</tr>
<tr>
<td>CNMI</td>
<td>$592</td>
</tr>
<tr>
<td>Guam</td>
<td>$1,032</td>
</tr>
<tr>
<td>Palau</td>
<td>$702</td>
</tr>
<tr>
<td>FSM</td>
<td>$474</td>
</tr>
<tr>
<td>Chuuk</td>
<td>$1340</td>
</tr>
<tr>
<td>Kosrae</td>
<td>$1440</td>
</tr>
<tr>
<td>Pohnpei</td>
<td>$1880</td>
</tr>
<tr>
<td>Yap</td>
<td>$280</td>
</tr>
<tr>
<td>RMI</td>
<td>$453</td>
</tr>
<tr>
<td>USA</td>
<td>$5331</td>
</tr>
</tbody>
</table>

Figure 1 USAPI Per Capita Total Expenditure on Health

**USAPI Pacific Regional Comprehensive Cancer Control Plan**
The ability of each jurisdiction to respond to meet the health needs of the region is dependent on the health infrastructure, financial resources, and the qua...
women in American Samoa, 43.6% of men and 34.6% of women in Marshall Islands, and 35.1% for men and 22.0% for women in the FSM (Pohnpei) \( ^{vi, vii} \).

One of the key indicators of the immense impact of the Western dietary and lifestyle patterns is the prevalence of lifestyle behavior related cancers in the USAPI. Cancer mortality now ranks as the second or third most common cause of death in nearly all USAPI jurisdictions. There are very high rates of thyroid cancers and nodules in the RMI \( ^{viii, ix} \), many attributable to the U.S. Pacific Nuclear Weapons testing program in the 1950s. Lung and oral cancer rank highly in all countries. Potentially curable cancers such as cervical and breast cancers are often found in far advanced stages. The availability of supplies or money to ship and process pap smears varies tremendously; in the FSM, less than 10% of eligible women receive pap smears; in the outer atolls of the RMI, no screening services are available at all. There is no mammogram in one urban area of the RMI, Ebeye as well as in the FSM. A working colposcope for diagnosis and early treatment of cervical cancer is non-existent in several areas of the FAS. The availability of fecal occult blood testing, colonoscopy or prostate-specific antigen varies. The FSM has no pathologist or radiologist and most countries do not have an oncologist. Some areas are able to perform limited maintenance chemotherapy when the patients return from the Philippines, but lack the proper equipment and training in the pharmacy. Medications for palliation are often in short supply and health personnel require more training in this area. In 2005, no support groups, hospice, home health or patient navigators existed in ANY jurisdiction. In 2012, most jurisdictions have at least one cancer survivor support group and budding support systems and personnel to help guide patients through the cancer journey. Traditional medicine and healing practices are used in most of the jurisdictions, but not well incorporated into the developing palliative care programs. Traditional leadership continues alongside modern democracy in the RMI and FSM. Religion and spirituality play important roles in the lives of the people. Even if proper funds and facilities were made available for the region, the strength in the fight against cancer comes by acting as a community to provide education on prevention, early detection, and palliative care and to drive policy decisions and systems improvement.
Table 1 Selected indicators, programs and services impacting CCC efforts in the USAPI

<table>
<thead>
<tr>
<th></th>
<th>American Samoa</th>
<th>CNMI</th>
<th>Guam</th>
<th>FSM</th>
<th>Palau</th>
<th>RMI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political status with U.S.A.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Population</td>
<td>94,719</td>
<td>51,170</td>
<td>160,378</td>
<td>105,104</td>
<td>21,108</td>
<td>69,747</td>
</tr>
<tr>
<td>Land surface area (sq. km)</td>
<td>100</td>
<td>177</td>
<td>541</td>
<td>702</td>
<td>668</td>
<td>161</td>
</tr>
<tr>
<td>Coastline (sq. km)</td>
<td>116</td>
<td>1,402</td>
<td>126</td>
<td>611</td>
<td>1,516</td>
<td>306</td>
</tr>
<tr>
<td>Public transportation</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>4-year University or College</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Hospitals</td>
<td>1</td>
<td>1</td>
<td>1 (2 by 2015)</td>
<td>1 (1 private in RMI)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Health expenditures per capita</td>
<td>$2000</td>
<td>$10</td>
<td>$1,002</td>
<td>$147</td>
<td>$15</td>
<td>$2005</td>
</tr>
<tr>
<td><strong>Age Structure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4 years; 25.7% (male 6,606/female 7,005)</td>
<td>16-24 years; 20.9% (male 7,057/female 7,070)</td>
<td>26-54 years; 41.0% (male 11,062/female 11,228)</td>
<td>65 years and over; 7.9% (male 2,005/female 2,104)</td>
<td>65 years and over; 4.8% (male 1,196/female 1,378)</td>
<td>0-4 years; 20.5% (male 21,685/female 33,400)</td>
<td>16-24 years; 16.9% (male 16,061/female 13,165)</td>
</tr>
<tr>
<td><strong>Birth Rate</strong></td>
<td>22.8 births/1,000 population</td>
<td>19.8 births/1,000 population</td>
<td>17.23 births/1,000 population</td>
<td>21.44 births/1,000 population</td>
<td>10.3 births/1,000 population</td>
<td>9.71 births/1,000 population</td>
</tr>
<tr>
<td><strong>Death Rate</strong></td>
<td>4.62 deaths/1,000 population</td>
<td>3.62 deaths/1,000 population</td>
<td>4.68 deaths/1,000 population</td>
<td>4.27 deaths/1,000 population</td>
<td>7.85 deaths/1,000 population</td>
<td>4.27 deaths/1,000 population</td>
</tr>
<tr>
<td><strong>Life Expectancy</strong></td>
<td>total population: 74.66 years; country comparison to the world: 70.36 years; male 71.73 years; female 77.8 years (2015 est.)</td>
<td>total population: 74.66 years; country comparison to the world: 70.36 years; male 71.73 years; female 77.8 years (2015 est.)</td>
<td>total population: 76.96 years; country comparison to the world: 72.37 years; male 76.09 years; female 81.86 years (2015 est.)</td>
<td>total population: 72.37 years; country comparison to the world: 72.20 years; male 70.59 years; female 74.16 years (2015 est.)</td>
<td>total population: 73.33 years; country comparison to the world: 72.51 years; male 69.17 years; female 75.85 years (2015 est.)</td>
<td>total population: 72.51 years; country comparison to the world: 72.28 years; male 69.17 years; female 75.85 years (2015 est.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ODD Breast and Cervical Cancer Early Detection Program</th>
<th>American Samoa</th>
<th>CNMI</th>
<th>Guam</th>
<th>FSM</th>
<th>Palau</th>
<th>RMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammography</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Pap Smear</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>On-island processing of pap smears</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cervical cancer screening using VIA</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Colorectal cancer screening (PCBT)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Prostate cancer screening</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

CANCER DIAGNOSIS AND TREATMENT

| Pathologist                                           | X              |     |     | X   | X     | X   |
| Circumcision/colposcopy                                | X               |     |     | X   | X     | X   |
| General Radiology                                     | X              |     |     |     | X     | X   |
| General surgeon                                       | X              | X    | X    | X   | X     | X   |
| OB-Gyn                                                | X              | X    |     | X   | X     | X   |
| Surgical subspecialists                               | X              |     | X    | X   | X     | X   |
| Oncologist                                            |                |     |     |     | X     | X   |

<table>
<thead>
<tr>
<th>American Samoa</th>
<th>CNMI</th>
<th>Guam</th>
<th>FSM</th>
<th>Palau</th>
<th>RMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-island chemotherapy</td>
<td>X (maintenance)</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>On-island radiation therapy</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Off-island referral to Philippines for diagnosis/trial</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Off-island referral to Hawaii for diagnosis/treatment</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Off-island referral to New Zealand for diagnosis/treatment</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
For more information on Cancer in the USAPI, please visit our website: http://pacificcancer.org, where the ‘Cancer in the US Affiliated Pacific Islands 2007 – 2011’ document is available for download.

Individual jurisdictions cannot address their cancer burden alone. Because of the size of the population, limited health workforce, relatively small numbers of cancer cases and the economics of the region, this regional CCC plan has been developed and refined.

HISTORY OF CANCER CONTROL INITIATIVES IN THE U.S. ASSOCIATED PACIFIC

Since the mid-1990s, physicians from the Pacific Basin Medical Association (PBMA) began raising concern for the increasing numbers of patients dying from cancer. At the same time, the Pacific Islands Health Officers Association (PIHOA) was developing a strategic plan which included focus on chronic diseases. PIHOA is the regional health policy body for the USAPIN, an organization comprised of the chief executive health official in each of the six USAPIN, the Directors of Health of the FSM States, the CEOs of Guam Memorial Hospital and LBJ Tropical Medical Center in American Samoa. In 1999, the President’s Cancer Council was presented with testimony on the cancer health disparities in the USAPIN. Dr. Freeman, the Chair of the Council, encouraged development of databases to strengthen the case for true cancer disparities. In February 2001, both PBMA and PIHOA made cancer a priority and these issues were discussed in many venues at the U.S. Federal level. In 2002, the NCI Center to Reduce Cancer Health Disparities, under the direction of Dr. Harold Freeman, and the NIH National Center on Minority Health Disparities provided financial resources in response to Pacific advocates requests. Funding was channeled through Papa Ola Lokahi, a Native Hawaiian Health Organization with a long track record of providing advocacy and technical assistance to the Pacific. Dr. Neal Palafox, of the University of Hawaii Department of Family Medicine and Community Health served as the Principal Investigator for this project (2002-2008). These combined NCI and NIH resources were used to form the Pacific Cancer Initiative*. The goal of the Pacific Cancer Initiative was to address the cancer health needs in the USAPIN by:

(a) Creating a regional cancer leadership team of Pacific Islanders;

(b) Assessing and articulating the cancer health needs of the USAPI; and

(c) Developing sustainable strategies to address the cancer burden in the USAPI.

Family Medicine residents and faculty physicians from the University of Hawaii Department of Family Medicine and Community Health and Dr. Henry Ichiho performed the Cancer Needs Assessments in 2002-03. The assessment teams met with key informants in the curative and preventive services to compile cancer-related data from death certificates, hospital records and off-island referral databases. In addition, the teams also asked key informants to assess the gaps in existing programs and services for cancer. The assessments were coordinated, reviewed and analyzed by the CCPI, presented for approval and verification of accuracy to the respective USAPIN health departments and published in a special issue of the Pacific Health Dialog on Cancer in the
Pacific. From there, preliminary regional and jurisdiction-specific priorities were formed. Health promotion projects were developed as first steps, utilizing the NCI and NIH funding. In 2004, the University of Hawaii, designated as the bona fide agent for 5 of 6 USAPIN, received a National Comprehensive Cancer Control Planning grant; Palau received their own NCCCP grant.

**EVOLUTION OF THE REGIONAL COMPREHENSIVE CANCER CONTROL PLAN**

The regional planning has been led by the Cancer Council of the Pacific Islands (CCPI), the first group of its kind dedicated to developing regional collaboration, appropriate strategies and recommending minimum regional standards for cancer control. The CCPI development was funded under the Pacific Cancer Initiative in 2002. The CCPI Board Members were designated by their respective Minister, Secretary or Director of Health. The CCPI is comprised of two representatives from health services for each jurisdiction (including the individual FSM States and representatives from Ebeye in the RMI). Most of the CCPI members are physicians or nurse leaders with a few health administrators. Jurisdiction and regional priorities were initially set as a result of the 2002-03 Cancer Assessments, but the priorities were largely focused on the medical model. With the advent of NCCCP funding to the University of Hawaii in June 2004, formal community-based coalition development started.

Each individual jurisdiction (American Samoa, Guam, CNMI, RMI, Palau, FSM National, Kosrae State, Pohnpei State, Chuuk State and Yap State) has developed a comprehensive cancer control plan to address their unique situation. NCCCP funding has provided full- or partial-salary support for a Comprehensive Cancer Control coordinator, as well as meeting logistics and travel for jurisdiction community meetings, as well as travel for the Coordinators to attend CDC Cancer-related meetings and other training. With the help of the CDC and the U.S. National Cancer Partnership, a Pacific-tailored and focused Comprehensive Cancer Control Leadership Institute was held in Honolulu in March 2005, which initiated much of the CCC activities. Additional technical assistance in CCC planning, writing of the plans and implementation grants has been provided by the University of Hawaii Pacific Regional Comprehensive Cancer Control Program staff and others. Coalition-building has been challenging in many locations not only because it is a very Western model with some conflicts with cultural expectations, but also because of the usual “vertical” and non-integrated nature of Federal programs which have been the sustaining force for many of the public health programs in the USAPIN. Despite the diverse needs and infrastructure for each of the USAPIN, there remain issues and goals common to the region that make most sense to address in a coordinated fashion and in close conjunction with policy makers and partners with the region. For this reason, the Pacific Cancer Coalition developed the USAPIN Regional Comprehensive Cancer Control Plan. The Pacific Cancer Coalition is comprised of all 10 jurisdiction coalitions.
The original Regional plan was developed over 3 years, with the CCPI taking the leadership and proposing goals and objectives based on the regional priorities set in August 2003. November 2005 marked the first Regional CCC meeting in Pohnpei, with 2-4 participants from each jurisdiction including the CCC Coordinator, a Coalition member and at least 1 CCPI representative. At that time, priorities were discussed. Also discussed were results of an assessment to determine the capacity for a regional central cancer registry in the USAPIN™. Regional goals agreed upon at the November 2005 meeting focused on sustaining a regional infrastructure for cancer control efforts, developing regional laboratory services, regional referral centers for basic cancer care and a regional cancer registry. At the July 2006 CCPI meeting, possible short- and long-term objectives and strategies were discussed and further refined. The proposed objectives were discussed with the PIHOA Board in August 2006 and some specific strategies were proposed by PIHOA to be done in close collaboration with PIHOA priorities. In November 2006 the Pacific Cancer Coalition reviewed and refined a detailed 5-year workplan, agreed on the management, implementation and evaluation plans and agreed on a set of minimum recommended Regional indicators for cancer prevention, screening and data quality. As part of the annual Plan review process and to better align with PIHOA’s timeframe and plans for certain initiatives in health workforce development, the CCPI continued to refine the plan in 2008-2010.

The 2012-2017 Regional CCC plan is more explicitly collaborative with other regional NCD programs in all goal areas and will augment the jurisdictions’ long-term capacity for surveillance, treatment, survivorship and evaluation. The CCPI and CCC coordinators began the process of plan update in 2010 by utilizing workgroups and going through a facilitated, iterative process to determine priority barriers and needs and proposed solutions. In 2011, the CCPI invited leaders and representatives from other Pacific regional coalitions and programs to assist in the revision of the CCC Plan. These leaders included the Pacific Partnership for Tobacco Free Islands, Pacific Chronic Disease Council, Pacific Basin Medical Association, Pacific Islands Primary Care Association, as well as members of the PIHOA HIS SWAT team working to address health information systems and data challenges in the USAPI. At the November 2011 PIHOA meeting http://pihoa.org/news/conference.php, additional contacts and requests were made of regional nursing, lab, pharmacy and education, to name a few. More detail of the collaborative strategies can be found in the Appendix to this plan.
CANCER BURDEN IN THE U.S. ASSOCIATED PACIFIC ISLAND NATIONS

Historically, the USAPIN has been challenged with developing relevant and accurate health information systems since before the Trust Territories management in the 1960s. The technology, resources and complexity have been difficult to maintain\textsuperscript{viii}, especially when superimposed on inadequately trained health workers. There were no cancer registries in the USAPIN until 1997, whereas several South Pacific non-U.S. associated Pacific nations had functional cancer registries since the 1970s. The 1998 Institute of Medicine Report, a 1998-99 RMI Nuclear Claims Tribunal-funded study attempting to determine the epidemiology of cancer in Micronesia\textsuperscript{xiv}, and the 2002-03 Pacific Cancer Initiative needs assessments all confirmed major challenges with policy, reporting structures and no cancer surveillance system in place in the USAPIN. Additionally, limitations in tissue-diagnosis of cancer (in the FSM especially) hamper accurate recording in the medical record and on the death certificates. The numbers of cases and deaths noted in the 2002-03 assessments is generally felt to be under-reported because of challenges with diagnosis and financing to send specimens off-island for interpretation.

In the United States, many other surveys and standardized sources of information exist to determine prevalence of certain cancer risk-factors like obesity, tobacco use, poor nutrition, sedentary lifestyle and others. The flag territories participate in the U.S. Behavioral Risk Factor Surveillance Survey (BRFSS) and
the Youth Risk Behavior Survey, but all jurisdictions recently received supplemental funding to conduct a modified BRFSS. The World Health Organization STEPS survey methodology is used in the FAS, with modified STEPS being planned for the Flag territories. All jurisdictions receive SAMHSA and CDC Tobacco monies and collect data related to tobacco and other substance use and the FAS participate in the Global Youth Tobacco Survey.

In 2007, the University of Hawaii was awarded a CDC National Program of Cancer Registries cooperative agreement, as the bona fide agent on behalf of the six USAPI, to plan and develop the Pacific Regional Cancer Registry (PRCCR). The PRCCR funds jurisdiction cancer registry staff, training and technical assistance in each jurisdiction, including the individual FSM States and FSM National. The PRCCR Registry is housed at the University of Guam, Cancer Research Center of Guam. Most of the first three years were spent on hiring and educating new registrars in RMI, Kosrae, Pohnpei, Yap, Chuuk, FSM National, the Region; additionally training existing registrars in Palau and Guam; hiring and retraining new registrars in Guam, Chuuk, and FSM National and finally hiring a registrar for CNMI in 2010. New legislation authorizing National/Commonwealth cancer registries was enacted in RMI, FSM and CNMI by 2009. In American Samoa, additional legislation was enacted in late 2009 to allow data sharing and case reporting outside of the Territory. An inter-jurisdiction (international) data sharing agreement was signed, with signatories from the six USAPI, the University of Guam and the Hawaii Tumor Registry. Infrastructure was put in place, registrar offices were moved to more physically secure locations and CDC NPCR software was adapted for the USAPI. Jurisdictions (except American Samoa, CNMI and Chuuk) began reporting 2007 cancer cases to PRCCR in 2009. In the RMI, Yap and Pohnpei, it is estimated that >95% of new cancer cases are reported to PRCCR. There has been steady improvement in the quality of data and case-capture rates in Kosrae, Palau and Guam and American Samoa. CNMI and Chuuk are catching up but 2007-2011 case reporting remains incomplete for Chuuk and CNMI. The 2012-2017 Regional CCC plan will continually update incident case numbers and proportional incidence by SEER Site Grouping from each jurisdiction. It is unfortunately not possible to calculate cancer mortality rates from the registry data because of major quality issues and inconsistency with death certification and registration throughout the USAPI. Jurisdiction cancer mortality reports submitted to WHO and others continue to be generated primarily from the hospital databases. Similarly, the lack of diagnostic capacity, expense of off-island referrals and heterogeneity in pathology lab and specialist reports make recording of accurate cancer stage data difficult. Given the small case numbers, age-adjusted incidence rates for some leading causes of cancer at the jurisdiction level are unstable. Age adjusted incidence rates and proportional incidence rates for the top 13 cancers in the region, as well as top 5 cancers by jurisdiction are in the figures and tables below.
Table 2 Top 13 Adult Incident Cancer Counts, Proportional Distribution and Rank, 2007-2012

<table>
<thead>
<tr>
<th>Top 13 Cancers for all USAPI</th>
<th>#cases</th>
<th>%</th>
<th>rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung &amp; Bronchus</td>
<td>452</td>
<td>15%</td>
<td>1</td>
</tr>
<tr>
<td>Breast</td>
<td>400</td>
<td>14%</td>
<td>2</td>
</tr>
<tr>
<td>Prostate</td>
<td>309</td>
<td>10%</td>
<td>3</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>263</td>
<td>9%</td>
<td>4</td>
</tr>
<tr>
<td>Liver</td>
<td>184</td>
<td>6%</td>
<td>5</td>
</tr>
<tr>
<td>Cervical Cancer, Invasive</td>
<td>155</td>
<td>5%</td>
<td>6</td>
</tr>
<tr>
<td>Uterus</td>
<td>150</td>
<td>5%</td>
<td>7</td>
</tr>
<tr>
<td>Leukemia</td>
<td>124</td>
<td>4%</td>
<td>8</td>
</tr>
<tr>
<td>Thyroid</td>
<td>116</td>
<td>4%</td>
<td>9</td>
</tr>
<tr>
<td>Tobacco-related Oral Cavity &amp; Pharynx</td>
<td>88</td>
<td>3%</td>
<td>10</td>
</tr>
<tr>
<td>Stomach</td>
<td>84</td>
<td>3%</td>
<td>11</td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>74</td>
<td>3%</td>
<td>12</td>
</tr>
<tr>
<td>Ill-defined &amp; unspecified (unknown+misc)</td>
<td>59</td>
<td>2%</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Pacific Regional Central Cancer Registry (PRCCR), 2007-2012 (Chuuk data incomplete)

Figure 2 Percent distribution of Top 13 Incident Cancers, USAPI 2007-2012

Distribution of adult cancers in the USAPI 2007-2012 (Chuuk data incomplete)

Screening test or PE 57%
Tobacco-related 47%
Obesity-related 36%
HPV-related 6%
Only 26% of cancers diagnosed at Stage 1
37% dead within 5 years of diagnosis
<table>
<thead>
<tr>
<th>All Sites 2007-2012 over age 20</th>
<th>#cases (all USAPI)</th>
<th>Incidence rate per 100,000 Adult (≥20yo) Hawaii (2005-09) USCS</th>
<th>Incidence Hawaii Adult Male Rate</th>
<th>Incidence Hawaii Adult Female Rate</th>
<th>Incidence rate per 100,000 US (2005-09) USCS</th>
<th>Incidence US Adult Male Rate</th>
<th>Incidence US Adult Female Rate</th>
<th>Age adjusted Incidence rate per 100,000 USAPI</th>
<th>Age adjusted Incidence USAPI Adult Male rate</th>
<th>Age adjusted Incidence USAPI Adult Female rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Sites</td>
<td>2999</td>
<td>443.4</td>
<td>504.3</td>
<td>401.6</td>
<td>474</td>
<td>549.6</td>
<td>417.7</td>
<td>201.3</td>
<td>236.5</td>
<td>174.7</td>
</tr>
<tr>
<td>Bones &amp; Joints</td>
<td>13</td>
<td>0.7</td>
<td>0.8</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
<td>0.7</td>
<td>1.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Brain &amp; Other Nervous System</td>
<td>23</td>
<td>4.4</td>
<td>4.9</td>
<td>3.9</td>
<td></td>
<td></td>
<td></td>
<td>2.6</td>
<td>2.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Breast</td>
<td>405</td>
<td>1.1</td>
<td>125.1</td>
<td>122</td>
<td>47.9</td>
<td>^^</td>
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<td>47.9</td>
<td>47.9</td>
<td>47.9</td>
</tr>
<tr>
<td>Cervix</td>
<td>155</td>
<td>--</td>
<td>8.2</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>19.6</td>
<td>--</td>
<td>19.6</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>267</td>
<td>48.6</td>
<td>59.6</td>
<td>38.7</td>
<td>46.2</td>
<td>53.8</td>
<td>40.2</td>
<td>19.4</td>
<td>18.3</td>
<td>14.5</td>
</tr>
<tr>
<td>Esophagus</td>
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<td>7</td>
<td>1.1</td>
<td>4.9</td>
<td>8.7</td>
<td>1.9</td>
<td>1.2</td>
<td>2.9</td>
<td>0.4</td>
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<td>Gallbladder</td>
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<td>1.05</td>
<td>1</td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
<td>1.7</td>
<td>1</td>
<td>2.3</td>
</tr>
<tr>
<td>Ill-defined &amp; unspecified (unknown+misc)</td>
<td>62</td>
<td>11.05</td>
<td>12.4</td>
<td>9.7</td>
<td></td>
<td></td>
<td></td>
<td>3.9</td>
<td>5</td>
<td>3.1</td>
</tr>
<tr>
<td>Kidney &amp; Renal Pelvis</td>
<td>48</td>
<td>13.3</td>
<td>18.4</td>
<td>8.8</td>
<td>15.6</td>
<td>21.2</td>
<td>11.1</td>
<td>3.4</td>
<td>5.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Larynx</td>
<td>24</td>
<td>2.4</td>
<td>4.6</td>
<td>0.5</td>
<td>3.9</td>
<td>6.8</td>
<td>1.5</td>
<td>1.7</td>
<td>3.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Leukemia</td>
<td>124</td>
<td>10.9</td>
<td>13.5</td>
<td>8.7</td>
<td>12.4</td>
<td>16</td>
<td>9.7</td>
<td>9.9</td>
<td>11.8</td>
<td>8.4</td>
</tr>
<tr>
<td>Liver</td>
<td>187</td>
<td>10.7</td>
<td>16</td>
<td>5.9</td>
<td>6.6</td>
<td>10.2</td>
<td>3.4</td>
<td>10.9</td>
<td>17.4</td>
<td>4.4</td>
</tr>
<tr>
<td>Lung &amp; Bronchus</td>
<td>462</td>
<td>52.9</td>
<td>68.7</td>
<td>40.4</td>
<td>67.2</td>
<td>82.9</td>
<td>55.7</td>
<td>35.2</td>
<td>53.1</td>
<td>19.5</td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.1</td>
<td>5.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Non-Hodgkin Lymphoma</td>
<td>41</td>
<td>16.5</td>
<td>20.9</td>
<td>13</td>
<td>19.3</td>
<td>23.2</td>
<td>16.2</td>
<td>2.7</td>
<td>2.7</td>
<td>2.6</td>
</tr>
<tr>
<td>Other Digestive</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.4</td>
<td>1.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Ovary</td>
<td>54</td>
<td>--</td>
<td>11.1</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
<td>--</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td>Pancreas</td>
<td>51</td>
<td>12.05</td>
<td>13.2</td>
<td>10.9</td>
<td></td>
<td></td>
<td></td>
<td>3.4</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Prostate</td>
<td>310</td>
<td>128.4</td>
<td>--</td>
<td>151.4</td>
<td></td>
<td></td>
<td></td>
<td>59.1</td>
<td>59.1</td>
<td>--</td>
</tr>
<tr>
<td>Skin excl Basal &amp; Squamous &amp; Melanoma</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.3</td>
<td>2.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Soft Tissue including heart</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.7</td>
<td>2.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Stomach</td>
<td>84</td>
<td>11.1</td>
<td>14.7</td>
<td>8.3</td>
<td>6.7</td>
<td>9.4</td>
<td>4.6</td>
<td>6.4</td>
<td>7.3</td>
<td>5.6</td>
</tr>
<tr>
<td>Thyroid</td>
<td>116</td>
<td>14.1</td>
<td>6.5</td>
<td>21.9</td>
<td>11.8</td>
<td>5.9</td>
<td>17.5</td>
<td>5.9</td>
<td>2.4</td>
<td>9.6</td>
</tr>
<tr>
<td>Tobacco-related Oral Cavity &amp; Pharynx</td>
<td>89</td>
<td>12.5</td>
<td>18</td>
<td>6.7</td>
<td>10.9</td>
<td>16.4</td>
<td>6.2</td>
<td>5.2</td>
<td>7.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>37</td>
<td>15.1</td>
<td>26.2</td>
<td>6.4</td>
<td>21.1</td>
<td>37.2</td>
<td>9.2</td>
<td>4.6</td>
<td>8</td>
<td>1.8</td>
</tr>
<tr>
<td>Uterus</td>
<td>151</td>
<td>--</td>
<td>29.6</td>
<td>24.4</td>
<td>17.1</td>
<td>--</td>
<td>17.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Incidence Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population; Chuuk data incomplete**
Table 4 Ten Leading Cancer Sites by Sex & proportional distribution, USAPI per 100,000, ranked by rate adjusted to US and World Std pop (U.S. 2000 Standard Popn, World Standard Popn 2000-2025)

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avg. Cases/Yr.</td>
<td>%</td>
<td>Avg. Cases/Yr.</td>
<td>%</td>
</tr>
<tr>
<td>Lung &amp; Bronchus</td>
<td>322</td>
<td>21%</td>
<td>Breast</td>
<td>400</td>
</tr>
<tr>
<td>Prostate</td>
<td>309</td>
<td>20%</td>
<td>Cervical Cancer, invasive</td>
<td>157</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>161</td>
<td>10%</td>
<td>Uterus</td>
<td>150</td>
</tr>
<tr>
<td>Liver</td>
<td>150</td>
<td>10%</td>
<td>Lung &amp; Bronchus</td>
<td>130</td>
</tr>
<tr>
<td>Leukemia</td>
<td>68</td>
<td>4%</td>
<td>Colon &amp; Rectum</td>
<td>102</td>
</tr>
<tr>
<td>Tobacco-related Oral Cavity &amp; Pharynx</td>
<td>67</td>
<td>4%</td>
<td>Thyroid</td>
<td>97</td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>54</td>
<td>4%</td>
<td>Leukemia</td>
<td>56</td>
</tr>
<tr>
<td>Stomach</td>
<td>48</td>
<td>3%</td>
<td>Ovary</td>
<td>52</td>
</tr>
<tr>
<td>Kidney &amp; Renal Pelvis</td>
<td>37</td>
<td>2%</td>
<td>Stomach</td>
<td>36</td>
</tr>
<tr>
<td>Ill-defined &amp; unspecified (unknown+misc)</td>
<td>35</td>
<td>2%</td>
<td>Liver</td>
<td>34</td>
</tr>
<tr>
<td>All Sites</td>
<td>1540</td>
<td>100%</td>
<td>All Sites</td>
<td>1417</td>
</tr>
</tbody>
</table>

Source: Pacific Regional Central Cancer Registry (PRCCR), 2007-2012 (Chuuk data incomplete)

Table 5 Ranking of Number, proportional incidence and selected incidence‡ of invasive cancers†, by primary sites and jurisdiction – Pacific Regional Central Cancer Registry (PRCCR), USAPI, 2007-2012

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
<th>#5</th>
<th>Cervical cancer rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM SAMOA*</td>
<td>Breast</td>
<td>Uterus</td>
<td>Colorectal</td>
<td>Cervical, invasive</td>
<td>Stomach</td>
<td>4</td>
</tr>
<tr>
<td>FSM*</td>
<td>Lung &amp; Bronchus</td>
<td>Cervical, invasive</td>
<td>Breast</td>
<td>Tobacco-related Oral Cavity &amp; Pharynx</td>
<td>Liver</td>
<td>2</td>
</tr>
<tr>
<td>GUAM</td>
<td>Lung &amp; Bronchus</td>
<td>Breast</td>
<td>Prostate</td>
<td>Colon &amp; Rectum</td>
<td>Liver</td>
<td>11</td>
</tr>
<tr>
<td>RMI</td>
<td>Cervical, invasive</td>
<td>Lung &amp; Bronchus</td>
<td>Breast</td>
<td>Liver</td>
<td>Leukemia</td>
<td>1</td>
</tr>
<tr>
<td>CNMI*</td>
<td>Breast</td>
<td>Lung &amp; Bronchus</td>
<td>Prostate</td>
<td>Colon &amp; Rectum</td>
<td>HPV-associated OC&amp;P</td>
<td>9</td>
</tr>
<tr>
<td>PALAU</td>
<td>Lung &amp; Bronchus</td>
<td>Liver</td>
<td>Prostate</td>
<td>Colon &amp; Rectum</td>
<td>Tobacco-related Oral Cavity &amp; Pharynx</td>
<td>7</td>
</tr>
<tr>
<td>All USAPI Total</td>
<td>Lung &amp; Bronchus</td>
<td>Breast</td>
<td>Prostate</td>
<td>Colon &amp; Rectum</td>
<td>Liver</td>
<td>6</td>
</tr>
<tr>
<td>USAPI Incidence‡</td>
<td>452</td>
<td>400</td>
<td>309</td>
<td>263</td>
<td>184</td>
<td>155</td>
</tr>
</tbody>
</table>

‡ Only combined USAPI all cancer cases were age-adjusted to the 2000 U.S. standard population

† Excludes basal and squamous cell carcinomas of the skin, except when these occur on the skin of genital organs, and in situ cancers, except urinary bladder

*Incomplete case reporting from Am Samoa in 2009, Chuuk, CNMI
For more information on Cancer in the USAPI, please visit our website: http://pacificcancer.org, where the ‘Cancer in the US Affiliated Pacific Islands 2007 – 2011’ document is available for download.

A major emphasis of the Regional CCC and Regional registry programs is to continue to work synergistically with PIHOA, vital statisticians, medical records staff, physicians, policy makers and other stakeholders to improve the quality of vital statistics (denominator data for all conditions), to improve the consistency of medical records (content, completion, coding), to improve the timely return of off-island referral information to health services and other issues that greatly impact cancer and NCD reporting. Now that all registrars are in place, an annual report of incidence will be incorporated into CCC efforts in the region and jurisdiction. The PRCCR was slightly customized for the USAPI to allow recording of NCD risk factors, co-morbidities, presence of cancer screening, immunization against Hepatitis B and HPV and betel nut use. Until that information is reliably recorded in the patient record by health care professionals, however, it will be exceedingly difficult for the registrars to enter the co-morbidity information accurately into the database.

Table 6 Leading Cancer Deaths by Site, pre-2003 (from 2002-03 NCI Pacific Cancer Initiative Cancer Needs Assessments)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of deaths attributed to cancer</td>
<td>152</td>
<td>215</td>
<td>790</td>
<td>722</td>
<td>38</td>
<td>30</td>
</tr>
<tr>
<td>Total Population (2005)</td>
<td>65,500</td>
<td>80,360</td>
<td>168,560</td>
<td>114,100</td>
<td>19,910</td>
<td>61,220</td>
</tr>
</tbody>
</table>

RANK ORDER

<table>
<thead>
<tr>
<th>Rank</th>
<th>Gender</th>
<th>Site 1</th>
<th>Site 2</th>
<th>Site 3</th>
<th>Site 4</th>
<th>Site 5</th>
<th>Site 6</th>
<th>Site 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>Lung</td>
<td>Lung</td>
<td>Lung</td>
<td>Lung</td>
<td>Lung</td>
<td>Breast</td>
<td>Brain</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>Lung</td>
<td>Unknown primary</td>
<td>Colorectal</td>
<td>Liver</td>
<td>Gastric</td>
<td>Liver</td>
<td>Cervix</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>Breast</td>
<td>Lymphoma / leukemia / multiple myeloma</td>
<td>Oral</td>
<td>Prostate</td>
<td>Pharynx</td>
<td>Liver</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Male</td>
<td>Stomach</td>
<td>Colorectal</td>
<td>Breast</td>
<td>Prostate</td>
<td>Liver</td>
<td>Breast</td>
<td>Naso/oropharynx</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>Colon</td>
<td>Cervical</td>
<td>Head/Neck</td>
<td>Cervix</td>
<td>Pancreas</td>
<td>Unknown</td>
<td>Unknown primary</td>
</tr>
<tr>
<td>6</td>
<td>Male</td>
<td>Breast</td>
<td>Head/Neck</td>
<td>Unknown primary</td>
<td>Breast</td>
<td>Colorectal</td>
<td>Larynx</td>
<td>Breast</td>
</tr>
<tr>
<td>7</td>
<td>Male</td>
<td>Brain</td>
<td>Stomach</td>
<td>Prostate</td>
<td>*Because of Esophagus</td>
<td>Uterine</td>
<td>Uterine</td>
<td></td>
</tr>
</tbody>
</table>

Table 6 leading Cancer Deaths by Site, pre-2003 (from 2002-03 NCI Pacific Cancer Initiative Cancer Needs Assessments)
Although it is not possible to calculate mortality rates based on information in the death certificates, an in-depth analysis of the PRCCR and selected individual jurisdiction cervical cancer data shows that many of the cases are diagnosed late and therefore a large proportion die within 1-2 years. For all cancers, only 26% are diagnosed at stage 1 and 37% have died within 5 years of diagnosis.

Despite the challenges with obtaining accurate information, the past and current data does reveal that many of the cancer deaths are from preventable (lung, nasopharyngeal, liver, cervix) or easily detectable and potentially curable (breast, cervix, colorectal, prostate, oral) cancers. Thus, the CCC efforts at the jurisdiction and regional levels are aimed at increasing the capacity to provide effective prevention and health promotion programs, screen for cancers using proven and cost-effective methods, develop the capacity to treat as many cancers on-island or within the region as possible, provide improved services for cancer patients and their families and improve policies, procedures and systems so that more accurate cancer-related information can be obtained for program planning and evaluation.
GOALS, OBJECTIVES AND STRATEGIES
for the 2012-2017 Regional CCC Plan

Vision: A Cancer-Free Pacific

Long term Regional goals include developing a sustainable regional collaboration to oversee cancer control efforts and set minimum recommended indicators for cancer control, developing a regional cancer registry, and developing local capacity for effective CCC program planning, implementation and evaluation, developing systems of care that are culturally- and resource appropriate and promoting rational policies addressing the social determinants of health and health disparity and common risk factors for cancer and other NCD.

The strategies outlined in this plan are comparatively short-term (2-10 years) and focus on

- Continuing and expanding collaboration with regional, U.S. National and International policy makers to garner and leverage additional resources to achieve the objectives set forth in this plan and to create more sustainable systems.
- Conducting regional assessments or compendia of existing policies, done in collaboration with other regional NCD partners, with the ultimate goal of consistent, resource-appropriate and relevant policies that impact control of cancer and NCD
  - Policies, guidelines or standards concerning social determinants of health, primary prevention, screening, surveillance and end of life care
- Conducting a comprehensive assessment of the current and future capacity for treating cancer and end-stage NCD patients within the region and making a formal recommendation to PIHOA and other policy makers
- Development of evidence-based curricula and training modules, which are easily adaptable to the diverse communities that exist within the USAPI
  - Palliative Care and Pain Management for clinicians
  - Caregiver curriculum for end-of-life care, utilizing both Western and traditional models of health and healing
  - Program planning and evaluation
- Through the Regional Cancer Registry, continuing work on developing or enhancing existing systems that promote collection and reporting of quality cancer and related NCD data to be used to guide policy and systems change, program planning and implementation

These regional, overarching objectives and strategies complement the jurisdiction CCC plans which contain specific prevention, health promotion, screening / early detection, treatment and quality of life strategies that are community-based, collaborative especially in health promotion and prevention, and designed to work for their particular unique situation.
In 2007, CCPI and PIHOA agreed to recommend Minimum Regional Indicators for cancer control:

**2007 USAPI Minimum Regional Indicators for Cancer Control**

<table>
<thead>
<tr>
<th>(prevention)</th>
<th>By 2012, each jurisdiction will achieve completed hepatitis B vaccination series in 90% of 2 year old children</th>
</tr>
</thead>
<tbody>
<tr>
<td>(early detection)</td>
<td>By 2009, jurisdictions without mammography will demonstrate a 10% increase above their baseline the number of women over 50 who are offered clinical breast exams annually</td>
</tr>
<tr>
<td>(early detection)</td>
<td>By 2012, each jurisdiction will demonstrate a 10% increase above their baseline the number of women age 18-65 who have a cervix who are offered cervical cancer screening at least every 3 years</td>
</tr>
<tr>
<td>(early detection)</td>
<td>By 2017, each jurisdiction will demonstrate a 10% increase above their baseline the number of women 50 and older or those at high-risk, who are offered a mammogram annually</td>
</tr>
<tr>
<td>(early detection)</td>
<td>By 2017, each jurisdiction will demonstrate a 10% increase above their baseline the number of men and women 50 and older who are offered a CDC-recommended colorectal cancer screening test</td>
</tr>
<tr>
<td>(data quality)</td>
<td>By 2010, each jurisdiction will establish a quality assurance program for tracking cancer-related data</td>
</tr>
</tbody>
</table>

Regional collaboration, sharing of resources and capacity building need to continue so that all USAPI countries can meet the minimum indicators. In 2010, the Federated States of Micronesia adopted Minimum National Standards for Breast and Cervical Cancer – across the continuum of prevention to palliative care. In 2011, the RMI adopted National Screening Guidelines for screening of breast, cervical and colorectal cancers. With the advent of using visual-inspection with acetic acid (VIA) in the FSM and RMI, the regional indicators and goals for cervical cancer screening need to be adjusted. All jurisdictions have implemented the HPV vaccination program, with varying degrees of success. The indicators were discussed at the May 2011 CCPI meeting, Regional Goals, Objectives and Strategies were further refined and discussed at the November 2011 CCPI meeting and the November 2011 PIHOA meeting.

Implementation of the Regional CCC plan involves collaboration with other regional affiliate organizations of PIHOA as the region moves to improve basic public health infrastructure, which includes capacity in different areas that impact control of NCDs including cancer. Effective collaboration, shared vision, an agreed upon structure for decision-making, representative / equal voting, informed decision making, shared decision making, open communication, and clearly defined roles and responsibilities are significant operating principles established and utilized by the CCPI to properly address cancer and NCDs. In 2011, the CCPI working collaboratively with other Pacific NCD partners established five (5) main goals of the 2012-2017 Regional CCC Plan:

**Goal:** Reduce the burden of preventable NCDs, including preventable cancers

**Goal:** Detect cancer, other NCDs, and shared risk factors in individuals as early as technically possible within USAPI

**Goal:** Improve the capacity to treat cancer and other NCDs effectively within the USAPI region
**Goal:** Provide adequate supportive care services for people and families with cancer and end-stage NCD

**Goal:** Improve evaluation systems in order to demonstrate efficacy of CCC programs doing collaborative work

Objectives and strategies were prioritized for implementation in 2012-2017 and were approved in November 2011 by the CCPI. The revised draft plan (missing the 2007-2011 cancer data) was approved May 2012 CCPI meeting. At the March 2014 CCPI meeting, based upon revised data and changing regional partnerships and priorities, the CCPI made additional recommendations to change or remove some of the strategies below.
PREVENTION GOAL: REDUCE THE BURDEN OF PREVENTABLE NCDs, INCLUDING PREVENTABLE CANCERS.
Within the USAPI, culturally appropriate primary prevention remains a cost effective and sustainable method to control cancer and other NCDs. Further upstream are primordial factors associated the social production of cancer and NCDs. These factors include the social determinants of health (education, poverty, food security) and inequity. The 2012 – 2017 Regional Plan will focus on preventing cancer through more coordinated primary prevention interventions and through working with the social determinant of health and disparity.

The 2012-2017 plan states a prevention goal, to reduce the burden of preventable cancers and NCDs. Three prevention based objectives will move the USAPI towards that goal: 1) working integrally with a NCD regional collaborative, 2) educating health workers, the community and policy makers about socio-ecological models and disparity as it affects CA and NCDs, and 3) leveraging resources for primary prevention for the jurisdictions and region.

The first objective, relating to working integrally with NCD partners, will lend synergy to the development for common evidence based messaging across risk factors and resources. Shared Cancer and NCD risk factors are approached in multiple ways by different programs. A compendium of exiting approaches and messaging will begin the process. Similar interventions and consistent messages that are evidence-based decreases community confusion and facilitates common understanding. NCD partners for this objective include the regional tobacco, chronic disease and diabetes, maternal child health, nutrition and behavioral health / substance abuse programs and coalitions.

The second objective speaks to collaboratively developing effective policies and other system changes so that decreases in risk behaviors can be measured and tracked.

The third objective will lead to the development and dissemination of relevant, culturally- and education level- tailored information, about the socio-ecological model of health and health disparities. The content will serve as a basis for a dialogue to affect social change that may have much larger impacts on controlling cancer and NCDs as compared to primary prevention.

Regional Project Period Objective 2: By 2017, increase the number of regional NCD partners engaged with CCPI in prevention-related discussions and activities that impact the Regional CCC
Annual Objective 2.1: By December 2015, increase the number of collaborative relationships with regional NCD coalitions, programs and other partners to develop common messages around four major risk factors.

**Strategy:** Foster collaboration with regional NCD partners relevant to prevention

**Major activities:** Include relevant NCD partners in at least four prevention workgroup meetings per year; CCPI participation in Regional NCD Council meetings; Execute MOA with key regional partners

Regional Project Period Objective 3: By 2017, begin to demonstrate an at least 2% decrease from baseline percent of the general population engaging in certain behaviors which puts them at risk for developing cancer and NCD

Annual Objective 3.1: By June 2016, increase the number by one each of effective prevention policies which are amended or developed to target four major NCD risk factors in the region

**Strategy:** Strengthen policy planning, development, and adoption across the USAPI Jurisdictions

**Major activities:** Collaborate with NCD programs and other partners to review existing policies related to prevention of NCD (tobacco, physical activity, nutrition/food security, obesity, environment, poverty reduction); Collaboratively amend and/or develop new policies for prevention targeting four major NCD risk factors; Work collaboratively with partners to monitor the impact of those policies

AO 3.1 was deleted. The University of Hawaii was contracted by PIHOA to compile a toolkit of policy examples and key background information, fact sheets and PowerPoint templates for CBO, public health agencies (including CCC), legislators and Executive Branch to supplement information in the WHO Best Buys and NCD PEN. Pacific Cancer Programs staff and student volunteers culled through thousands of webpages to find the most relevant and/or adaptable to the USAPI. Topic areas included tobacco, alcohol, nutrition, physical activity, built environment, health in all policies, policy 101, community engagement. For an example, see http://www.pihoa.org/initiatives The PIHOA webmaster is the process of putting the material on the web. CCPI members gave feedback at various points during the project and the module on policy 101 and related resources were demonstrated and discussed at the October 2013 CCPI meeting. PIHOA, UH and others will undergo an iterative feedback process in build up to the NCD Leadership Forum which is proposed by PIHOA for later in 2014. As part of the development process, jurisdictions shared (if comfortable) examples of their success stories / policy examples. Envisioned for the Toolkit website are links to additional resources / examples / success stories / source documents / more in depth how-to guides for various topics areas.
Regional Project Period Objective 4: Through 2017, increase the number of policies and programs specifically addressing the social determinants of health (SDH) as they relate to cancer and NCD

Annual Objective 4.1: Through 2017, increase the number from 0 to 3 of culturally and educationally tailored information presented to diverse stakeholders and decision-makers who impact cancer and NCD control

Strategy: Develop and disseminate adaptable models, curricula and tools

Major activities: Adapt SEM/SDH model and framework for the USAPI; Create a compendium of existing laws or policies addressing SDH; Conduct gaps analysis; Develop and disseminate an adaptable curriculum or toolkit on SDH for delivery in at least three major sectors in each jurisdiction

SCREENING/EARLY DETECTION GOAL: DETECT CANCER, OTHER NCDs AND SHARED RISK FACTORS IN INDIVIDUALS AS EARLY AS TECHNICALLY POSSIBLE WITHIN USAPI.

Secondary prevention of cancer and other NCDs through screening and early detection increases longevity and enhances quality of life. The 2007-2012 regional plan focused on the regional capacity for cervical cancer screening through support for pathology / cytology training, and augmentation of laboratory infrastructure. The prior RCCC plan also articulated developing health workforce development, quality assurance and continuing quality initiatives to maximize health workforce productivity, efficiency, and standards—with a focus on laboratory and screening efforts. A regional central laboratory was also proposed.

Early in 2007-2008 it was determined that utilization of pap smear technology was not feasible in several of the USAPI jurisdictions. Other cervical cancer screening technologies were subsequently evaluated. Visual inspection with acetic acid (VIA) was implemented in the FSM and RMI, where pap smear technology was not sustainable or even possible in the remote areas. Cervical cancer screening and breast cancer screening were enhanced through the development of minimum standards for cancer screening in the FSM and RMI, where no CDC-funded Breast and Cervical Cancer Early Detection Programs exist. Cervical cancer screening awareness programs were promoted in all jurisdictions to increase community penetration of screening.

Health workforce development and quality assurance initiatives were provided throughout the region’s laboratories and hospitals via a partnership with PIHOA, the local health ministries, and the community colleges from 2009-2012. The regional laboratory discussion is ongoing and is led by PIHOA.

USAPI Pacific Regional Comprehensive Cancer Control Plan 26
The 2012-2017 Pacific regional cancer control screening / early detection goal is expanded to include screening for NCDs and screening for common NCD risk factors. The 2012 -2017 regional plan will further develop regional standards for cancer and NCD screening based on the success of the 2007-2012 standards for screening in several jurisdictions. Creating efficient processes is an implied part of standards development. In 2008-2011, clinical staff in all areas reiterated the need for real-time access to data – at the point of care – so that the clinician could be aware of important co-morbidities and rectify deficiencies in health maintenance education, measurement or testing. The Pacific Chronic Disease Coalition (PCDC) has been working since 2010 to adopt the Chronic Disease Evaluation Management Systems for all diabetes programs in the region. The CCPI has endorsed this effort (exploration of a common clinical / point-of-care tracking system) and will encourage further exploration of existing processes and health information systems so that implementation efforts are systematic and appropriately resourced.

During the 2007-2012 period, it was found that faith based communities had a powerful effect on social mobilization for health promotion, cancer prevention and tobacco cessation in Kosrae and Pohnpei. Adapting the successful faith-based strategies to screening throughout the region through systematic engagement of faith-based communities will be fostered.

Key collaborators for this goal area include core working groups with diverse representation of public health program managers or data specialists, clinicians, cancer registrars, vital statisticians and close coordination with PIHOA Quality/Performance Improvement Managers and Health Information System improvement efforts as those evolve.

**Regional Project Period Objective 5:** Through 2017, increase by at least three, the number of collaboratively implemented minimum regional guidelines to expand or enhance screening and early detection for cancer, NCD and shared risk factors.

**Annual Objective 5.1:** By the end of December 2015, conduct an assessment of screening standards and guidelines to support cancer and NCD screening across the region.

**Strategy:** Conduct an assessment of screening standards & guidelines to support cancer and chronic diseases screening across the region

**Major activities:** Convene a meeting of all major stakeholders to identify and prioritize common surveillance needs; Develop simple assessment tool to determine current screening practices, indicators and guidelines; Conduct assessment; analyze and disseminate report to stakeholders

**Regional Project Period Objective 6:** Through 2017, regionally showcase best practices and model programs which are designed to increase access to cancer and related screening services and to reduce health disparities.
**Annual Objective 6.1:** By the end of June 2013 and annually thereafter, increase by at least one, the number of descriptions of best practices in cancer and NCD screening services posted on pacificcancer.org or pihoa.org website(s)

**Strategy:** Facilitate adoption of best practices in screening for cancer and NCD

**Major activities:** In coordination with NCD partners, develop a reporting template and process to determine best practices; Sponsor an annual call for nominations of best practices and model programs to improve access to NCDs and cancer screening services; Dissemination via website and email blasts

**Regional Project Period Objective 7:** By June 2017, mobilize at least one faith-based network in the region to assist with improving access to screening for cancer, NCD and shared risk factors and to reduce health disparities

**Annual Objective 7.1:** By June 2014, increase to at least one the number of formal relationships with faith-based networks across the region to address the screening of cancer and shared risk factors for NCD via the church community.

**Strategy:** Develop faith-based regional partnerships

**Major activities:** In collaborative settings, discuss the process needed to systematically engage faith-based organizations at a regional level; Identify existing faith-based networks in the USAPI; Develop formal relationships

*AO 7.1 was deleted from the tasks list based on the decision of the CCPI during their semi-annual meeting in March 2014, Guam. No regional faith-based network exists, that we could co-operate with, and the HLC has currently has limited functionality, so our program doesn’t have the means to reach this Objective.*

**Annual Objective 7.2:** By December 2015, increase from 0 to 1 the number of faith-based screening activities that are operational throughout the region.

**Strategy:** Develop or adapt faith-based screening programs as an augmentation to existing health services

**Major activities:** Adapt and implement at least one (every 2 years) appropriate cancer or NCD screening activities into the faith-based setting

*AO 7.2 was deleted from the tasks list based on the decision of the CCPI during their semi-annual meeting in April 2015, Honolulu.*
TREATMENT GOAL: IMPROVE THE CAPACITY TO TREAT CANCER AND OTHER NCDs EFFECTIVELY WITHIN THE USAPI REGION.

Enhancing the capacity for treating cancers is a priority for the USAPI. The 2007-2012 Regional Cancer Control Plan focused on palliative care, a feasibility study for provision of maintenance cancer chemotherapy, and exploring the possibility of a regional cancer center within the USAPI.

The palliative care initiatives are rudimentary and efforts are ongoing. Basic feasibility assessments in the jurisdictions have determined that most USAPI systems are unable to develop a chemotherapy infrastructure due to limited human and financial resources. Chemotherapy, when possible, is sought out of country in all jurisdictions except Guam. A regional referral center in the USAPI was also deemed to be cost and human resource prohibitive.

The 2012-2017 regional cancer plan for treatment has a framework with five components — 1) identifying the current availability of cancer treatment modalities in each jurisdiction 2) identifying the processes and systems that provide patient access to treatment modalities, 3) understanding the individual / population impacts of cancer treatment in the region, 4) determining the sustainability of various cancer treatment and palliative care modalities in the USAPI and, 5) partnering with NCD programs which utilize common diagnostic /treatment technologies and patient access processes.

Component 1—identifying what currently exists – formulates a baseline of what diagnostics or treatments are in operation and how much they are utilized. Treatment modalities for cancers and non-communicable diseases have a wide range of cost and clinical efficacy. Application of new medical treatment and technologies in the USAPI has often been a double edged sword.

Component 2 – the processes involved to ensure patients are able to obtain necessary treatment of cancers (and end stage NCDs) – includes an off-island triage and medical referral system, which is largely based on local medical referral policies. Patients requiring treatment are triaged from distant remote islands to larger, more populous island centers. Treatment that cannot be managed in the island centers are referred to larger countries such as the United States (Hawaii and California), Taiwan and the Philippines as limited financial resources permit. Government referral for treatment is tied to medical referral policies that are specific to each jurisdiction.

Component 3 – understanding individual- and population-based impact of treatment technologies – will establish if the current treatment technologies have made a significant difference at the individual health care and population levels of health care. Is there greater longevity, increased quality of life, decreased suffering, and decreased mortality?

Component 4 – sustainability – examines the question, “Are current or planned treatments for cancer and NCDs financially affordable (in the long term), socio-culturally appropriate, supported by the necessary health care workforce, and a priority in fragile Pacific health care environments?”
Additionally, comprehensive impact monitoring of current and new treatment modalities is needed for appropriate planning of future treatment options. A comprehensive assessment will elucidate the feasibility and regional processes needed to support treatment options for cancer and NCDs.

Component 5 builds the Cancer / NCD partnerships to improve the treatment of cancers and NCDs in the USAPI.

Based on this the framework, three objectives were selected in the 2012-2017 period by the CCPI. The first objective will be a descriptive and analytical n assessment of existing local cancer treatment modalities, secondary and tertiary referral policies, jurisdiction cancer treatment plans, and health finance budgets related to cancer and NCD treatment infrastructure. The second objective entails work with Regional leadership, PIHOA, and other policy makers to maximize regional synergism, resources and collaborative NCD partnerships. The third objective looks to develop a more robust traditional and palliative treatment programs throughout the USAPI.

Key collaborators for this objective include other NCD programs (diabetes), community-health center providers (PIPCA), clinical staff (PBMA, Nurses), policy makers. Information from recently performed assessments (PCDC) will also be incorporated into the design of the assessment. The comprehensive scope includes examination of systems, policies, human resources for health development, infrastructure for the full spectrum of treatment including palliative care, wound care, complementary and alternative medicine, behavioral health, and referral processes.

**Regional Project Period Objective 8:** Through June 2017, maintain or increase the number of in-region treatment options for common cancers and end-stage complications of NCD

**Annual Objective 8.1** By June 2015, increase from 0 to 10 the number of completed assessments of on-island and/or in-country treatment capacity for common cancers and complications of NCD

**Strategy:** Complete a thorough inventory of human, infrastructure and systems capacity for cancer and NCD treatment in the region

**Major activities:** Develop listing of items and reports needed for the inventory of treatment capacity; Develop the assessment tool, based on the background report, to complete the picture on treatment capacity for cancer and other NCDs; Complete the assessment and produce a final report incorporating both background information and recently collected information
Regional Project Period Objective 9: Through 2017, advocate with PIHOA to develop a systematic plan to increase in-region capacity to treat patients with common cancers and end-stage NCD.

Annual objective 9.1.1: By mid-2016, increase from 0 to 1 the number of white papers or reports to PIHOA calling for systematic processes to increase in-region capacity to treat patients with cancer and end-stage NCD.

Strategy: Advocacy based on existing needs, projections, cost-effective and resource-appropriate interventions

Major activities: Once the assessments are completed, work collaborative with NCD partners to develop key advocacy points; Submit proposal to PIHOA for the development of a process for building treatment capacity within the USAPI.

Regional Project Period Objective 10: By 2017, each USAPI jurisdiction will adapt and implement a resource-appropriate pain and end-of-life care model

Annual Objective 10.1: By June 2013, increase the number by 2 of technical assistance provided to jurisdictions to adapt a palliative care curriculum for community and nurses

Strategy: Adapt evidence-based curriculum to meet the needs of USAPI nurses and lay persons

Major activities: Work with jurisdictions to adapt the existing curriculum; Garner resources to assist with providing the first training

During the March 2014 CCPI meeting in Guam members agreed to help American Samoa provide their training (it isn’t organized yet and they are the only Jurisdiction that haven’t done one before) and after that is done, 10.1 activity will be closed and all resources will be appointed to 10.2

During the April 2015 CCPI meeting in Honolulu members agreed to close down and delete 10.1 on the basis of financial feasibility and reasonability.

Annual Objective 10.2: By 2015, and at least bi-annually thereafter, deliver the Clinician's Palliative Care training within the USAPI

Strategy: Adapt evidence-based curriculum to meet the needs of USAPI clinicians

Major activities: Expand the existing palliative care curriculum to be more appropriate for clinicians; Develop a palliative care train-the-trainers curriculum, including comprehensive pain management; Pilot the curriculum; Implement starting in 2015 to ensure that ongoing training can be maintained; Annually provide at least one CME session on an evidence-based palliative care topic at the PBMA meeting.
During the April 2015 CCPI meeting in Honolulu, members agreed to explore the possibility of renewed distance education efforts – via store-and-forward or annotated presentations that can be viewed at one’s leisure during the next CCPI meeting in late 2015.

QUALITY OF LIFE / SURVIVORSHIP GOAL: PROVIDE ADEQUATE SUPPORTIVE CARE SERVICES FOR PEOPLE AND FAMILIES WITH CANCER AND END-STAGE NCD

The Comprehensive cancer control plan addresses population based management and care for those individuals who are living with a diagnosis of cancer or other NCDs (survivorship). Whereas the burden of cancer and NCDs in the USAPI is heavy, the populations are increasing, and the proportion of elderly is increasing, the absolute number of people who have a diagnosis of cancer or other NCDs is expanding exponentially. The Regional USAPI Cancer Control Plan for 2012-2017 builds on a growing interest in survivorship because of the rapid Pacific demographic and epidemiologic transition and the limited resources to address the rapid changes.

Western hospital-based health care models have been introduced and rapidly assimilated into the USAPI cultures over the last 60 years. Westernization, urbanization and hospital-based health care has eroded the traditional survivorship environment and has created an opportunity to blend traditional and Western methods to manage complications of chronic illness and end of life care.

The 2012-2017 Regional plan will address regional survivorship through developing and delivering models of western survivorship that are adapted to the unique USAPI settings. Equally important are developing and delivering traditional survivorship models that are adapted to the current USAPI cultural setting. Caregiver training, in both traditional and western methods, will be provided. Whereas much of the western survivorship model is readily available for adaptation, the traditional models will require research and documentation.

Assisting patients navigate through the local / regional health care and social support systems will be facilitated through patient navigators. Resources will be sought for the caregiver training, establishing a patient navigation system and providing end of life support in the community and in institutional settings.

Maintaining quality of life is crucial for people with cancer and other serious illnesses throughout their lives. Although treatment options are few, strong family and community ties lend themselves to the development of community-based programs for survivorship, caregiver support, and patient navigation. Additionally, healthcare professionals need ongoing training and policies and procedures implemented to support seriously ill people and those caring for them.

Communicable disease, the need for coordination and support increases to help them navigate their journey. This includes identifying available resources for physical, emotional and spiritual care.
(including support groups and survivorship resources), help understanding medical terminology and procedures, connections with the healthcare system (hospitals, clinics and public health nurses), and coordinating with off-island referral offices if appropriate. The initial steps will be to conduct a needs assessment in each jurisdiction, share successful strategies for developing systems and addressing gaps, and create appropriate partnerships to fund development of the navigation programs.

**Policies.** In order to insure quality of life for people who are seriously ill, healthcare workers must be trained in Palliative Care including providing pain and symptom management, good communication, and caregiver support. Once a patient is diagnosed with cancer or a serious / end-stage NCD, care becomes more complex, often resulting in overwhelmed patients and families. End-stage NCD includes, but is not limited to complications of cerebrovascular disease, diabetes, arthritis, heart disease, kidney disease and lung disease. Examples include severe peripheral vascular disease, wounds and gangrene, amputations, stroke, dysphagia, dementia, becoming wheelchair- or bed-bound. Palliative care must be built into health systems and be supported by leadership. Protection of workers who develop serious illness as well as their caregivers must be implemented to protect people’s jobs and benefits.

**Regional Project Period Objective 11:** By 2017, increase the number of jurisdictions from 1 to 10 who have the capacity to provide resource- and culturally-tailored home-based care for patients with cancer and end-stage NCD.

**Annual Objective 11.1** By June 2013, disseminate a caregiver curriculum which can be easily tailored to jurisdiction or community needs

**Strategy:** Modify, adapt and disseminate a Caregiver Curriculum (in the Western model of health care) which has already been delivered in two USAPI countries

**Major activities:** Oct 2012 adapt; May 2013 CCPI review/adopt; June 2013 disseminate

*As of March 2014, this objective became irrelevant. Palau Community College institutionalized the Family Caregiving Course and most of the Jurisdictions are sending their participants here. PIHOA is also trying to implement a course in American Samoa, while Pohnpei is trying to acquire AHEC support for their own curriculum.*

**Annual Objective 11.2** By June 2014, increase from 0 to 2 per jurisdiction the number of trainers capable of further adapting the Caregiver Curriculum for their unique settings.

**Strategy:** Develop and conduct a train-the-trainer workshop

**Major activities:** Tailor the workshop to address the varied health system, policy and cultural challenges; Collaboratively identify trainers and trainees; Conduct the workshop
Annual Objective 11.3 By June 2015, increase from 0 to 10 the number of jurisdictions who adopt at least one policy to allow for jurisdiction-, resource- and culturally-tailored provision of end-of-life care to dying patients.

Strategy: Implement policies which allow for provision of culturally-tailored end-of-life care for dying patients

Major activities: Complete policy assessment in each jurisdiction and determine gaps; identify and adapt model policies/legislation; implement policy

Given that the CCPI does not have authority to implement policies at the jurisdiction level, and that each policy will need to be tailored to local resources, we suggest that 11.3 either be deleted or changed to “Recommend to PIHOA and individual Senior Health Officials that they consider the model policies for adaptation to their settings” during the next CCPI meeting. CCPI members will need to champion the policy adaptation and adoption at the local level.

Annual Objective 11.4 By June 2014, increase the number of jurisdictions from 1 to 8 for which key elements of a traditional health care model are documented and able to be incorporated into a Caregiver Curriculum

Strategy: Incorporate traditional models of healing into the Western framework of survivorship

Major activities: Conduct assessment, determine what factors are key to include in a traditional model of survivorship, determine how best to incorporate into a curriculum

No resources are available to do an initial assessment but there is no need, since all jurisdictions are already incorporating traditional healers into patient-centered treatment plans. The AO will be deleted based on the CCPI’s decision during our March 2014 meeting in Guam.

Regional Project Period Objective 12: By December 2017, increase the number from 0 to 10 jurisdictions with financial and human resources to maintain a resource-appropriate patient navigation system.

Annual Objective 12.1: By 2017 secure resources for a patient navigation system in each jurisdiction

Strategy: Conduct assessment of health system capacity for patient navigation; Work with national and international partners to secure resources for a patient navigation system in each jurisdiction
DATA GOAL: IMPROVE EVALUATION SYSTEMS IN ORDER TO DEMONSTRATE EFFICACY OF CCC PROGRAMS DOING COLLABORATIVE WORK.

Challenges with present health information systems and lack of cancer surveillance in the region have been described in the “Cancer Burden” section. Capacity for analyzing cancer and NCD program information or for designing appropriate evaluation strategies also differs among jurisdictions. In most areas, there remain significant issues with proper completion of the death certificates by physicians and proper coding by medical records staff. Present medical records staff in all of the USAPI have limited foundational training in anatomy, physiology, medical terminology or coding, so chart abstracting for any purpose, but especially for cancer, is difficult. Economic challenges also impact maintenance of the basic infrastructure to support quality health information in some settings (copier machines, faxes, paper to duplicate the correct encounter forms, etc.).

The data and system challenges that impact control of NCD and cancer are protean. Systematic efforts, led by PIHOA, are being done as part of the public health infrastructure initiative. Continued capacity building is needed throughout the region and jurisdictions to attain excellence and sustainability.

CCC Programs are required to conduct annual evaluation of the CCC Program, Partnerships and Plan. In order to conduct a good evaluation, data is required from many parts of the health system and community partners. Key collaboration and input is needed from partners when asked for effective completion of CCC partnership, program and plan evaluations. Through the Pacific Regional Central Cancer registry and UH, we will continue to collaborate with PIHOA and advocate for common and minimum data standards to support control of NCD and cancer through the entire spectrum of prevention to end-of-life care. Key activities for the first program year include refinement of the existing RCCC evaluation tool for external partners, the development of the RCCC Program Assessment, and RCCC Plan Implementation assessment.

Regional Project Period Objective 13: By 2017, the CCPI will conduct at least four (4) annual assessments of the Regional CCC Program, Partnership and Plan.

Annual Objective 13.1: By June 2013, increase the number from 0 to 10 completed assessments of the current evaluation system in each jurisdiction’s cancer control program including CCC, registry, breast and cervical screening

Strategy: Complete an assessment of cancer program evaluation systems / plan in each jurisdiction
**Major activities:** Develop a preliminary assessment tool, based on CDC DCPC CCCB Evaluation tool kit and REACH U.S. / CBPR assessment tools; Conduct the assessment; Refine evaluation tools

**Annual Objective 13.2:** By December 2013, increase the number from 1 to 3 of regional evaluation tools to determine efficacy of the Regional CCC Program, Partnership and Plan

**Strategy:** Develop appropriate CCC evaluation tools for the RCCC program and plan; refine current Partnership assessment

**Major activities:** Build on AO 13.1 activities and develop regional CCC evaluation tools; Pilot and refine tools with CCPI/CCC

**Annual Objective 13.3:** By May 2014, increase and then maintain the number from 1/3 to 1 each of completed evaluations of the Regional CCC Program, Partnership and Plan

**Implementation**

**Strategy:** Conduct annual evaluation of the RCCC program

**Major activities:** Conduct evaluation

**Regional Project Period Objective 14:** By 2017, increase from 0 to 10 the number of completed TA and training in community-based program planning and evaluation across the USAPI.

**Annual Objective 14.1:** By June 2013, increase the number from 0 to 10 of completed assessments of the current evaluation system(s) or plan(s) in place for each jurisdictions’ cancer control program including CCC, registry, breast and cervical screening (same as 13.1)

**Strategy:** Complete an assessment of cancer program evaluation systems / plan in each jurisdiction

**Major activities:** Develop a preliminary assessment tool, based on CDC DCPC CCCB Evaluation tool kit and REACH U.S. / CBPR assessment tools; Conduct the assessment; Refine evaluation tools

**Annual Objective 14.2:** By June 2014, increase the number from 0 to 3 of conducted pilot testing of at least one jurisdiction program, plan or project evaluation tools (in at least 3 Pacific Island Jurisdictions)

**Strategy:** Develop evaluation tool kit which is customizable for the PIJ resources

**Major activities:** Build on AO 13.1 activities and develop CCC evaluation tools; pilot each tool in different jurisdictions

**Annual Objective 14.3:** By June 2017, increase the number from 0 to 5 of conducted evaluation workshops, tailored to jurisdiction needs
**Strategy:** Conduct evaluation workshops

**Major activities:** Find resources to conduct evaluation workshops in each jurisdiction that desires one; conduct workshops

**Regional Project Period Objective 15:** By 2017, increase the number of resources garnered to develop a sustainable regional resource for community-based program planning and evaluation

**Annual Objective 15.1:** By June 2014, increase the number from 0 to 1 white paper or recommendation to PIHOA for development of a sustainable regional resource for community-based program planning and evaluation

**Strategy:** Leverage resources with PIHOA and others to develop a sustainable resource

**Major activities:** Based on the assessments conducted under PPO 14, develop a white paper to PIHOA and proposal to other potential funders

**PARTNERSHIPS AND COLLABORATION**

The individual jurisdiction Comprehensive Cancer Control coalitions include representatives from the community, traditional leadership, local non-governmental organizations, churches, businesses, education and health sectors. The FSM National CCC Coalition also includes leadership from the economic and finance sectors and the Office of Compact Management. The CCC process at the jurisdiction level has fostered closer collaboration and coordination of efforts among existing public health programs in tobacco, maternal child health, behavioral health, dental health, sexually transmitted disease, nutrition, diabetes and breast/cervical cancer (if that exists in the jurisdiction). Those ten coalitions comprise the Pacific Cancer Coalition. Communication and coordination is primarily through each jurisdiction’s CCC Coordinator and secondarily to the Cancer Council of the Pacific Islands (CCPI) members (who are part of their jurisdiction’s coalition).

The Pacific Regional Comprehensive Cancer Control (CCC) Plan was developed with the assistance of many partners in addition to all of the CCC coalitions in the USAPI, the CCPI and the Pacific Islands Health Officers Association (PIHOA). Because the Regional CCC plan is different from the typical CCC plan, feedback was obtained from U.S. National experts and partners at the UICC International Cancer Congress meeting in Washington D.C., Intercultural Cancer Council meetings, C-Change, Strategic Health Concepts and the WHO Western Pacific Region Office Human Resources for Health Technical Advisor.

Implementation of this Regional CCC plan will require expertise and resources from U.S. National agencies and organizations, international agencies and donor countries. Implementation will also
require even closer collaboration between Pacific regional organizations that deal with NCDs, health, health policy, education and economics.

A partial listing of current and proposed partners follows. The CCPI, through their Secretariat, will be primarily responsible for garnering support for the strategies proposed in this Regional plan. The CCPI and PIHOA will also collaborate closely to ensure that Regional CCC efforts are congruent and coordinated with PIHOA where possible.

- Pacific Islands Primary Care Association
- American-Pacific Nurse Leaders Council
- Pacific Basin Medical Association
- Pacific Basin Dental Association (oral cancer)
- Pacific Post-Secondary Education Council
- University of Hawaii Cancer Center – Hawaii Tumor Registry
- CDC Division of Cancer Prevention and Control
- CDC Coordinating Office for Global Health, Division of Epidemiology and Surveillance Capacity Development
- CDC – Sustainable Management Development Program
- CDC Division of Partnerships and Strategic Alliances
- U.S. Health Resources and Services Administration
- U.S. Department of the Interior
- Pacific Chronic Diseases Coalition (PCDC)
- Micronesian Community Network (MCN)
- Micronesian Health Advisory Coalition (MHAC)
- Pacific Partners for Tobacco-Free Islands (PPTFI)
- Pacific Behavioral Health Collaborating Council (PBHCC)
- C-Change
- Intercultural Cancer Council
- Lance Armstrong Foundation
- American Cancer Society
- National Cancer Institute – Center to Reduce Cancer Health Disparities
- National Institutes of Health – National Center on Minority Health and Health Disparities
- WHO Western Pacific Regional Office
- WHO Pacific Open Health Learning Network
- Asian Development Bank
- United Nations
- Australia AID
- New Zealand AID
- Japan International Cooperation Agency
- other international donor countries/agencies
- Fiji School of Medicine (FSMed) and FSMed Department of Public Health
- Massey University
The Pacific Cancer Coalition is comprised of all 10 of the Pacific Cancer Coalitions. For regional meetings and decision-making, each coalition is represented by their jurisdiction CCC Coordinator, and CCPI Members. Prior to CCPI meetings, the CCC Coordinator discusses upcoming issues and completes necessary pre-work with their coalition and health department leadership.

The Cancer Council of the Pacific Islands provides the overall direction for regional CCC efforts and the CCPI members from each jurisdiction are part of their jurisdiction CCC coalitions and steering committees. The Pacific Islands Health Officers Association (PIHOA) serves as overall advisory to the CCC process since the PIHOA Board and Associate Members are the Ministers/Secretaries/Directors of Health for their jurisdiction.

The Steering Committee for the Pacific Cancer Coalition is comprised of the CCPI Executive Committee (President, Vice-President, Secretary-Treasurer) and the Regional CCC Project Staff. Because the CCPI does not presently have its own infrastructure to manage the Pacific Regional CCC plan, they have designated the University of Hawaii Department of Family Medicine and Community Health (UH DFMCH) to serve as the Secretariat for the CCPI, to continue in its present role.
capacity of supporting and advising the CCC process in each jurisdiction and the region, to continue
to develop the Regional Cancer Registry in close coordination with jurisdiction efforts and to
continue assisting with advocacy for cancer-related issues at the U.S. National, Hawaii, Regional and
international levels. A long-term goal is that the CCPI will be able to be an autonomous
organization. However at this early stage of development, continuing partnerships to facilitate
development of the CCPI and the Regional Cancer Coalition are critical.

Because several of each jurisdiction’s objectives and strategies will be implemented in close
conjunction with regional strategies, a full-time Regional CCC coordinator is needed. If funds are
available, a part-time CCC Program Evaluator will be hired. Drs. Neal Palafox and Lee Buenconsejo-
Lum will remain on the project as technical advisors. Each jurisdiction’s implementation grant
application contains a portion of the regional CCC subcontract, which will fund the Secretariat,
Regional CCC Coordination, and maintenance of a web-based clearinghouse of information related
to cancer control and policy issues affecting the region.

Technical assistance provided by Hawaii-based partners will be coordinated through the Regional
CCC Program office. Additional technical assistance specifically regarding the development of the
Pacific Regional Central Cancer Registry will be provided by the Hawaii Tumor Registry / University
of Hawaii Cancer Center in close collaboration with the UH Department of Family Medicine. Pacific
Islands Primary Care Association members are updated regularly on cancer control efforts and most
of the (Executive Directors of the Community Health Centers) are already partners with their local
CCC coalitions.

Communication and coordination among the different coalitions, including the FSM State coalitions
is through the CCC Coordinators. There will be one week-long Regional meeting per year, with one
of the two semi-annual CCPI meetings happening one day prior to the Regional CCC meeting. The
Regional CCC office will also coordinate calls with cancer coordinators and CCPI members to discuss
progress, scheduling of trainings, successes and challenges with implementation, distribute relevant
materials and to improve coordination in general. The CCC Coordinators will disseminate
information back to their respective coalitions. Pacific Regional CCC collaboration, related news,
events, and information is also available through http://pacificcancer.org, a resource established
and maintained by the Department of Family Medicine and Community Health cancer programs
(Pacific RCCC, Pacific Cancer Registry and Pacific CEED Program). Additionally, the Regional CCC
staff is always available by email or cell-phone. Creating a central resource portal for cancer control
related information greatly helps to expedite some implementation activities.

Communication with external partners will be accomplished by distributing the Regional and
jurisdiction CCC plans to the partners listed in the previous section and participating in various
meetings. Additionally, a more succinct monograph highlighting the uniqueness of each jurisdiction
and the region and a summary of the CCC plans will be developed and distributed by the Regional
CCC program office. As the regional CCC website is developed, coordinators will contribute
information regarding events, opportunities and policies and external partners will also be invited
to contribute information to the website.

Prioritization of the Regional CCC plan will be time- and resource-based and focused on addressing
core foundational issues so that long-term sustainability can be achieved. The plan is likely to adapt
based on new information, policies that affect the region, other opportunities and new
partnerships. The Steering committee will review, evaluate and update the plan at least twice
yearly; the entire CCPI will also discuss implementation of the Regional and jurisdiction CCC efforts
semi-annually and the full Pacific Cancer Coalition will review and renew the Regional CCC plan at
each annual meeting. If the Steering Committee proposes major revisions to the plan, those will be
distributed at least 30 days in advance of the Regional meeting so that the jurisdiction CCC
coitons can have opportunity to reflect on the proposed changes. Decision-making will be by
simple majority. Because of the health workforce shortages, it is sometimes not possible for both
CCPI members to attend, so the Pacific Cancer Coalition has decided to allow for voting by proxy
and/or for call-in (conference call) voting if needed.

EVALUATION OF THE PLAN AND PROCESS
Evaluation is a key component of any successful program. Throughout the regional CCC planning,
various evaluation methods have been utilized to guide the process and positive changes have been
made as a result.

Initially, the steering committee will function as the evaluation committee and will be responsible
for developing and carrying out the evaluation plan. The committee, with the assistance of the
Regional CCC program, will determine the appropriate assessment tools and methodology, conduct
the evaluation and report the results.

Evaluation will be carried out on a year-to-year basis and through the
process we will try to show how previous year’s findings and suggestions
were built into our plan, thus how the results of the evaluation process
helped to shape and better our strategy.

The evaluation process can be broken down into 3+1 main categories:

1) Partnerships
2) Plan
3) Program
4) Products (optional)

Each category will be evaluated by a focus questions, its indicators, data available, and results of the
data analysis. All indicators and results in the above mentioned categories help us find answers to
the following evaluative questions (which questions also show why we are doing the evaluation process in the first place):

- ‘Have the Partnership / Plan / Program been successful in a sense that they reached more than 90% of their related indicators in the given year?’
- ‘Are coalition members involved in planning, implementing and evaluation the program activities?’
- ‘Are stakeholders involved in the evaluation process?’
- Will the results of the evaluation be used to update the program plan and if yes, how so?

The answers to these questions (the program evaluation itself) will be placed in an operational framework that helps both the evaluator and the interested reader to understand the grounds the program operates on. This framework will encompass information on:

- Main successes / goals
- Program regional characteristics / specifics
- Factors limiting program success
- Challenges in the evaluation process and activities

We will also separately evaluate and measure our programs impact (if applicable) and monitor if our efforts of disseminating results were successful or not.
LISTING OF REGIONAL COALITION MEMBERS

The Pacific Comprehensive Cancer Control Coalition is comprised of the 10 jurisdiction coalitions, their Coordinators and CCPI members. A full list would include over 300 members. Each jurisdiction plan contains a detailed list of their coalition members and their roles in the community and in the coalition. The CCPI members, and jurisdiction CCC coordinators are noted below:

(list of members updated on 05/20/2015)

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Prefix</th>
<th>CCPI Member</th>
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<tbody>
<tr>
<td>President</td>
<td>Dr.</td>
<td>John Ray Taitano</td>
</tr>
<tr>
<td>Vice President</td>
<td>Dr.</td>
<td>Helentina Garstang</td>
</tr>
<tr>
<td>Secretary</td>
<td>Ms.</td>
<td>Martina Reichhardt</td>
</tr>
<tr>
<td>American Samoa</td>
<td></td>
<td>Dr. Aloiamoa Anesi (appointment ended, no continuation since 09/30/2014)</td>
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<tr>
<td></td>
<td></td>
<td>Ms. Moira Wright</td>
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<tr>
<td>CNMI</td>
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<td>Ms. Jocelyn Songsong</td>
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<td></td>
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<td>Dr. John M. Tudela</td>
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<tr>
<td>FSM (national)</td>
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<td>Secretary of Health</td>
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<td></td>
<td></td>
<td>Vita Skilling</td>
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<td></td>
<td></td>
<td>Mr. X-ner Luther (CCC)</td>
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<tr>
<td>Chuuk State</td>
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<td>Dr. Yoster Yichiro</td>
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<td></td>
<td></td>
<td>Dr. Kino S. Ruben (CCC)</td>
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<tr>
<td>Kosrae State</td>
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<td>Mr. Nena Tolenoa (CCC)</td>
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<td></td>
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<td>Dr. Livingston A. Taulung</td>
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<td>Pohnpei State</td>
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<td>Dr. Kesusa Bermanis</td>
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<td></td>
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<td>Ms. Robina Anson</td>
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<td>Yap State</td>
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<td>CEO John Gilmatam</td>
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<td>Dr. Eric Lirow</td>
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<td>Guam</td>
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<td>Dr. John Ray Taitano</td>
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<td>Ms. Roselie V. Zabala</td>
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<td>RMI</td>
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<td>Dr. Dr. Cho Cho Thein</td>
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<td>Republic of Palau</td>
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<td>Ms. Edolem Ikerdeu</td>
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<tr>
<td>Jurisdiction</td>
<td>CCC Coordinator</td>
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<tr>
<td>American Samoa</td>
<td>Mr. Reupena Paopao Sheck</td>
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<td>Ms. Sharina Clark</td>
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<tr>
<td>Palau</td>
<td>Ms. Irish Tutii</td>
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REFERENCES


ii 2013 and 2011: World Health Organization, Western Pacific Region (WPRO) Statistical Tables. The most recent country data is presented (FSM, RMI, AS, GU). FSM State data (Chuuk, Kosrae, Pohnpei, Yap) are from the FSM Census 2000, FSM Statistics Division.


