National Comprehensive Cancer Control Plan 2017-2022

Ministry of Health & Human Services

Republic of the Marshall Islands

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National Comprehensive Cancer Control Plan 2017-2022

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TABLE OF CONTENTS

Message from the Secretary

Iakwe nan Aolep im bed wot ilo aoo in kile im kauteej aolep.

On behalf of Honorable Minister Kalani R. Kaneko, the Senior Leadership Team, the National Comprehensive Cancer Control Program team and all of us from the Ministry of Health & Human Services, we acknowledge the Government of the Republic of the Marshall Islands and extend our deepest appreciation to all our donor, development and implementing partners who continue to provide valuable training, technical assistance and funding support to the fight against cancer. We would like to recognize the good work of our National Cancer Coalition under the leadership of the current Chairman Rikaki George Ainrik, and those before, for the continued commitment and volunteerism to reduce the burden placed on families and individuals affected by cancer. Special recognition as well to Mrs. Camilla Ingram who founded the Cancer Survivor Group (also known as JIEIKNE- Jej Ibbendron Eoeo Im Kibed Non Ejmour) simply translated as *uniting together to help soothe the pain away and embrace lifen and good health after cancer*.

I would like to acknowledge the sincere messages from NCC Chairman Rikaki George Ainrik and NCCCP Director Neiar Kabua and be reminded as to why we need to invest in cancer prevention and control services. We offer this plan to firstly demonstrate the overwhelming national responsibility on the increasing medical treatment costs for off island referrals, the increasing costs for medicines and medical supplies, and the loss of productivity and human resource. Secondly, we hope this plan will serve as a map to help navigate from where we were in 2017 to what we would like to accomplish by 2022. And thirdly to highlight the need for an integrated approach with increased collaboration and coordination amongst health providers and community organizations by integrating the strategies and interventions into current services and programs for sustained outcomes. Meaning to say if you do something well and it works, for example weto-to-clinic or church-to-clinic prevention and early detection programs, then stick with it and let's find a way to resolve the challenges. We hope this plan will also avoid the unnecessary duplication of efforts and instead provide opportunities to supplement, complement and enhance existing health services.

Bar juon alen bok ien im lewaj ao nebar, kammolol im kauteej aolep kin jerbal emon ko ami nan kejparok ro nukud im mottad jen naninmej kein an cancer. Jouj im kejparok eok im baamle eo am. Anij ibbedwoj kajjojo.

Julia M. Alfred
Secretary of Health & Human Services

Message from the Cancer Coalition Chairman

Iakwe!

I am much honored to say a few words on behalf of the National Cancer Coalition regarding this very important step in our fight against cancer and other non-communicable diseases (NCDs). The *National Comprehensive Cancer Control Plan 2017 -2022* is a five-year plan that addresses many of our challenges in eradicating this heinous disease called "cancer." This plan will serve as one of our guides towards a healthier Marshall Islands.

We did not ask for it, but cancer and other NCDs grips into our bodies and enslaves our health and future. Through this plan, I am very optimistic that our island nation will learn to fight together to change the current health situation we are in. We could help each other have the strength to drive our own health instead of diseases driving us around.

It has been over ten years since the last strategic plan on cancer was developed through the leadership of the Ministry of Health. I am glad that many NGOs, government agencies, and communities including churches have come together once again to collaborate in creating this new strategic plan. If we put our efforts together and support the Ministry of Health – we can strongly advocate for better health for our people including our children.

Furthermore, the *National Comprehensive Cancer Control Plan 2017 -2022* will only work if we will do what it asks us to do. It is an achievable plan but it will take collective and collaborative efforts from all of us. I encourage all traditional leaders, community leaders, church leaders, and government leaders to make an effort to participate and take ownership of this plan.

I want to acknowledge the many individuals who have contributed their time, energy, and expertise to make this wonderful plan possible. To our dear friends, Dr. Nia Aitaoto and Dr. Richard Trinidad, MOH staffs especially Ms. Neiar Kabua, NGOs, women's group, youth groups, churches, and other stakeholders that I failed to mention – thank you very much.

Komol tata and Anij en jiban RMI.

Reverend Ainrik George
National Cancer Coalition Chairman

Message from the NCCCP Director

Iakwe to everyone!

On behalf of the National Comprehensive Cancer Control Program staffs and volunteers – we want to extend our deepest gratitude to all the staffs from the Ministry of Health and to our dearest community and external partners who took part in the year-long process of creating the *National Comprehensive Cancer Control Plan 2017 -2022*. We could have not achieved this without any of you.

In my over ten years of being at the helm of the NCCCP – I have witnessed firsthand the devastating effects of cancer in the lives of many people and families: children have lost mothers, wives have lost husbands, parents have buried children, and even young people have died prematurely because of the disease. I have likewise lost friends and relatives because of cancer. Over the years, I also got the rare chance to form friendships with many people living with cancer. I have seen the way they live with fear knowing that in any day – the cancer may return and take them away. And yet, I am also amazed at their courage and faith in God to face this disease and even death itself.

My prayer is that God will use this plan to help us fight the increasing burden of cancer to our people. I also hope that the plan will be successfully implemented in improving the lives of cancer survivors. I personally dedicate this plan to all individuals and families that have been affected by this deadly disease in any way.

I look forward to working with each one of you involved in implementing this plan. With God's help we can truly make a change.

Neiar Kabua
NCCCP Director

MISSION AND VISION

MISSION STATEMENT

The Republic of the Marshall Islands National Comprehensive Cancer Control Program is committed to minimizing the impact of cancer, thereby improving the quality of life for communities of the Marshall Islands by:

- Delivering innovative, compassionate, accessible, community-based medical care and support to individuals and families affected by cancer with measurable impact on patient outcomes.
- Decreasing the incidence of cancer by encouraging prevention programs and early detection through appropriate screening and medical services.
- Capacity building for the health care workforce through additional training and certification to better meet cancer screening, early detection, and treatment needs.
- Empowering clients by providing high quality, culturally relevant, linguistically appropriate, evidence-based cancer health education resources, so the public can make informed choices.
- Facilitating psychological and counselling services, as well as community peer groups to provide physical and spiritual support.
- Educating policymakers and vigorously undertaking governmental and departmental legislation and advocacy on all matters relating to cancer care, support, and education.
- Seeking partnerships and collaborations and providing meaningful opportunities for cancer survivors and volunteers, valuing their commitment, experience, insight, and knowledge as integral to better fulfilling NCCCP's mission.
- Exemplifying and promoting the highest level of public accountability and social responsibility through self-evaluation and continuous improvement within the constraints of sound fiscal management and prudent use of resources to fill the gap in services.

VISION STATEMENT

The Republic of the Marshall Islands National Comprehensive Cancer Control Program's vision is to be the preeminent cancer health services provider in the RMI by ensuring that:

- All cancer prevention services are established and provided.
- Innovative frameworks for early detection and prevention are established and provided.
- Feasible cancer treatment services are established and provided.
- Palliative care is provided to all cancer patients.
- Support services are provided for cancer patients, survivors and their loved ones.

Thereby provide efficient cancer health services to the people of the Marshall Islands and thereby maximizing effective utilization of available resources.

INTRODUCTION

Brief Description of the Republic of the Marshall Islands

The Republic of the Marshall Islands is located in the central northern Pacific, between 4° and 19° north latitude and between 160° and 175° east longitude. The country lies in two parallel chains of 29 low-lying atolls and islands: the Eastern Ratak (Sunrise) and the Western Ralik (Sunset). The Marshall Islands has an Exclusive Economic Zone of about 750,000 square miles.[1] According to the 2011 RMI census, the population was 53,158 persons with about 27,243 males (51.2%) and 25,915 females (48.8%).[2] Annual population growth rate is 0.4% over the past five years. Prior to the census, there were projections that the population would be between 55,000 to 60,000 people but because of massive migration in recent years, it is estimated that about 11,000 Marshallese have already left the country.[3]

A key feature of the RMI population distribution has been the dominance of two atolls, Majuro and Kwajalein, which accounts for 74% of the country's population. Only about 1 out of 4 now resides in other atolls or most often referred to as 'outer islands.' The outer islands communities are underserved areas in terms of health and education service compared to the two main atolls. This is mainly due to geographical challenges. Flight schedules are unreliable and some islands can only be reached by boat.

[1] Ichiho, H. (2012). Republic of the Marshall Islands: Majuro. Assessment of the Capacity and Needs for Diabetes and its Related Risk Factors: A Systems Perspective. Report to the Pacific Chronic Disease Coalition

[2] RMI 2011 Census on Population and Housing

[3] Behavioral Health Epidemiological Profile, Republic of the Marshall Islands, 2014

Background

Ten years ago, the RMI Ministry of Health developed and released its first comprehensive plan to address the cancer burden – the RMI National Comprehensive Cancer Control Plan 2007-2012. There were significant challenges during the first few years of implementing this plan. One of these is the lack of collaboration between health programs within the Ministry of Health and the inexistence of community organizations working together to effectively implement the plan. Furthermore, no major planning efforts were made in 2012 and program objectives and activities were just rolled over onto the next five years.

In 2015, the Ministry of Health through collaboration with governmental and non-governmental agencies including communities, embarked again on several NCD assessments and planning activities. This plan - the *National Comprehensive Cancer Control Plan 2017-2022* is one of the products of this endeavor. It is a combination of sections from various NCD-related plans made into a single comprehensive plan that addresses the entire cancer continuum from primary prevention to cancer survivorship and end-of-life issues. This collaborative approach minimizes duplication of NCD-related efforts from various organizations and health programs and fosters teamwork and effective use of limited resources in the Marshall Islands (see table 1).

Table 1: Comprehensive Cancer Control Plan 2017-2022 Sources

Primary Prevention	Poor diet (NCD/cancer risk factor) Lack of physical activity (NCD/cancer risk factor) Tobacco-use (NCD/cancer risk factor)	Majuro NCD Community Action Plan, Kwajalein DIAK Plan, and Kumit Coalition Plan
	Alcohol consumption (cancer risk factor)	Kumit Bobrae Coalition Plan
	HPV and HBV (sexually transmitted diseases and other infectious agents causing cancer)	Immunization Program Plan and STD Prevention Program Plan
Secondary Prevention	Cervical, Breast, and Colorectal Cancer Screening	NCCCP Planning
	Oral and nasopharyngeal Cancer Screening	NCCCP Planning
	Early detection of Thyroid Cancers	DOE and 177 Program Plan
Cancer Care	Cancer Treatment (medical care)	NCCCP Survivorship Plan
	Quality of Life (survivorship care)	NCCCP Survivorship Plan
	End-of-life (palliative care)	NCCCP Planning
Cancer Registry	Cancer data and reporting	PRCCR Plan

Overall Goals of the National Comprehensive Cancer Control Plan

The goals of the NCCCP Plan are focused on key issues across the whole cancer continuum. Under each goal are priority strategies that were developed through a planning process characterized by partner collaboration, use of available data and assessment results, implementation of evidence-based solutions and best practices, and efficient use of limited resources (see table 2).

Based on the number of priority strategies, the NCCCP Plan also highlights the top priorities of the National Comprehensive Cancer Control Program for the next five years which are: cervical cancer screening, breast cancer screening, and cancer survivorship. Rationale for these target priorities is explained further in the next section Burden of Cancer.

Table 2: The 14 Overarching Goals of the Comprehensive Cancer Control Plan 2017-2022

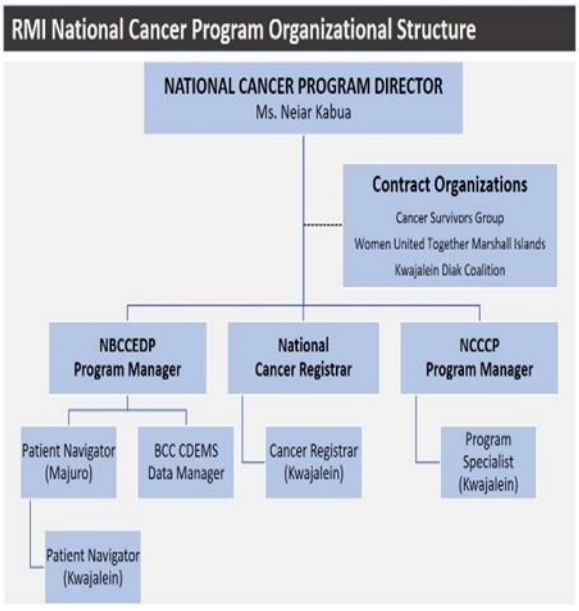
	Number of Priority Strategies
Primary Prevention	
1. Reduce the impact of poor diet on cancer incidence and mortality.	1
2. Reduce the impact of poor physical activity on cancer incidence and mortality.	1
3. Reduce the impact of tobacco use and exposure on cancer incidence and mortality.	3
4. Reduce the impact of alcohol consumption on cancer incidence and mortality.	3
5. Reduce the impact of HPV & other infectious agents on cancer incidence and mortality.	4
Secondary Prevention	
6. Reduce mortality from cervical cancer through screening and early detection.	6^
7. Reduce mortality from breast cancer through screening and early detection.	6^
8. Reduce mortality from colorectal cancer through screening and early detection.	3
9. Reduce mortality from oral and nasopharyngeal cancer through selective screening.	2
10. Reduce mortality from thyroid cancer through early detection.	1
Cancer Care	
11. Improve access to cancer treatment (curative care)	5
12. Improve the quality of life of cancer survivors (survivorship care)	6^
13. Improve end-of-life-care (palliative care)	2
Cancer Registry	
14. Improve and maintain quality cancer data and reporting.	4

^ *Top priorities of National Comprehensive Cancer Control Program 2017-2022*

The National Comprehensive Cancer Control Program and Coalition

The National Comprehensive Cancer Control Program (NCCCP) of the RMI Ministry of Health integrates and coordinates approaches in reducing cancer incidence, morbidity and mortality through: primary prevention, early detection, treatment, and survivorship care (see Figure 1). In spite of many challenges in its early years, the NCCCP has succeeded in integrating its initiatives with other health programs and collaborating with communities and other non-governmental organizations leading to the formation of the National Cancer Coalition (NCC). In the past two years, the coalition completed its comprehensive needs assessments and planning activities participated by many of the coalition's partnering organizations and other programs. As a result, the NCCCP and NCC developed two plans: 1) the RMI Cancer Survivorship Plan that was made on 2016 and 2) the RMI National Comprehensive Cancer Control Plan 2017-2022 (CCC Plan 2017-2022) which was completed the following year.

Figure 1: Proposed RMI National Comprehensive Cancer Control Program Organizational Structure



In contrast to its predecessor (the CCC Plan 2007-2012), the CCC Plan 2017-2022 was developed through collaboration with coalition partners (see table 3). As earlier stated, the new cancer plan is informed by several other plans developed by other coalitions and national health programs in order to minimize duplication of NCD or cancer-related efforts. Furthermore, this approach fosters integration and collaboration, promotes ownership, and drives effective use of limited resources in the Marshall Islands (see again table 1).

Table 3: The RMI National Comprehensive Cancer Control Coalition (NCC)

	Description of Participating Organization or Individual
177 Health Care Program	Serves the health needs of the four nuclear affected atolls; services include cancer screening activities.
Cancer Registrar (MOH)	Oversees the national registry; updates the regional registry; provide cancer data and reports.
Cancer Survivorship Group (CSG)	A highly-active community-based organization in Majuro composed of cancer survivors and families. They provide cancer support services to cancer survivors and families. They are also involved in implementing cancer awareness activities and advocacies.
Churches	Several churches are currently partners of the cancer coalition in implementing the church-to-clinic screening project. Representatives from churches participate in cancer planning and implementation.
College of Marshall Islands (CMI)	The CMI Media team provides technical assistance in developing educational media products (e.g. NCD videos).

Dental Department (MOH)	The MOH dental departments contribute to cancer prevention efforts by conducting oral cancer screening services.
Department of Energy (DOE) Clinic	The DOE Special Medical Care Program for the DOE patient population conducts regular cancer screening for clients including thyroid cancer screening and early detection.
Ebeye Cancer Coalition (ECC)	ECC is composed of community leaders (traditional, church, health, education, and other NGOs) and cancer survivors. They implement a yearly cancer workplan in coordination with the NCCCP.
Ebeye Community Health Center (ECHC)	A federally-qualified community health center in Ebeye, Kwajalein Atoll. ECHC provides cervical, breast, and colorectal cancer screening to health center patients.
Health Promotions Program (MOH)	Collaborates with all other MOH programs to provide health promotion support and education materials for outreach and other activities.
Immunization Program (MOH)	Provides HPV and HBV immunization services.
Kora In Jiban Lolorjake Ejmour (KIJLE)	A women's organization in Majuro (under Women United Together Marshall Islands) that is highly involved in many NCD prevention activities. They are currently running a walking club program that promotes physical activity; they promote breast cancer screening; and they conduct healthy meal cooking demonstrations.
Kumit Bobrae Coalition (Kumit)	A highly-organized and dynamic national coalition that addresses tobacco, alcohol, and other substance abuse issues including mental health. The coalition is led by the Single State Agency.
Kwajalein Diak Coalition (KDC)	The primary NCD community coalition in Kwajalein. KDC implements a community action plan that addresses NCDs and risk-factors including diabetes and cancer.
Laboratory Department (MOH)	The laboratory department processes sample specimens for cervical and colorectal cancer diagnosis. They also maintain a colorectal cancer screening registry.
Majuro Clinic	The sole private practice clinic in the Marshall Islands. Medical practitioner served in the MOH for many years as liaison to the Filipino community living in the Marshall Islands.
Marshall Islands Breast Cancer Society	A newly formed non-profit organization composed of breast cancer survivors that promote breast cancer awareness.
Marshall Islands Mayor Association (MIMA)	The MIMA pledged to provide support in improving cancer awareness and screening activities in the outer islands.
Marshall Islands Medical Society (MIMS)	Medical specialists from the MIMS provide critical input in implementing cervical, breast, and colorectal cancer screening and other cancer services.
Maternal Child Health and Reproductive Health Programs (MOH)	MOH program that runs the clinics where majority of cervical and breast cancer screening is done.
Ministry of Education (MOE)	The MOE (also known as Public School Systems) incorporates all health education and awareness messages into health curriculum.
Ministry of Health (MOH)	The MOH provides oversight to the NCCCP and all statewide cancer efforts. It mobilizes all related programs and departments to partner in cancer control efforts.
National Comprehensive	The NCCCP provides oversight in implementing the NCCCP Plan. It

Cancer Control Program (NCCCP)	provides monitoring, evaluation, and other technical assistance needs to NCCCP efforts.
National Medical Referral Services (MRS)	The MOH office that oversees and handles all off-island referrals to institutions outside of the Marshall Islands. These referrals include the vast majority of cancer patients requiring cancer treatment which is not available on-island. Partnership with NMRO is critical in improving medical and survivorship care for cancer patients.
National Non-Communicable Disease Coalition (NCDC)	Coalition is composed of various community-based organizations that address diabetes and other NCDs. They serve as partners in primary prevention efforts against NCDs.
Non-Communicable Disease Program (NCDP)	The MOH program that focuses on diabetes and diabetes-related risk factors; collaborates closely with the National NCD Coalition and Kwajalein DIAK Coalition in implementing NCD Community Action plans.
Office of Health Planning, Policy and Statistics Office (OHPPS)	Main division of the Ministry of Health that utilizes critical health data for planning and policy development. OHPPS provides information technology support in cancer control efforts including the development of cancer screening registries such as CDEMS (Chronic Disease Electronic Management System).
Public Health (MOH)	Delivers NCCCP efforts to outer-island communities through the outer-island dispensaries and mobile outreaches.
REACH Program (MOH)	Performs policy work on NCD risk-factors and critical in delivering primary prevention efforts against cancer.
STD-HIV Prevention Program (MOH)	MOH program that focuses on preventing Sexually Transmitted Diseases (e.g. cancer-causing STDs such as HPV and HBV). As part of the NCCCP efforts, the STD-HIV Prevention program collaborates with Youth to Youth in Health (YTYIH) in promoting use of condoms.
Wellness Center	Funded by the Canvasback Mission Inc., the center implements nutritional and physical activity programs and runs facilities such as a healthy restaurant and fitness center.
Women United Together Marshall Islands (WUTMI)	WUTMI is the RMI national women's organization that has a dynamic and comprehensive network of chapter organizations across the entire Marshall Islands. As part of the coalition, WUTMI is in the forefront of promoting breast and cervical cancer awareness and prevention to all women.
Youth to Youth in Health (YTYIH)	YTYIH is nationwide community-based organization that deals with youth-related issues such as substance abuse, suicide, and sexually-transmitted diseases amongst others. Their clinic may be utilized for after-hours cancer screening activities.

BURDEN OF CANCER

Although significant progress has been made in the Marshall Islands to reduce the burden and impact of cancer in the past ten years, much still remains to be done. The Republic of the Marshall Island's (RMI) Ministry of Health (MOH) report showed that between 2009 and 2013, cancer remains the second leading cause of death (Table 4).

Table 4: Leading Causes of Death 2009-2013

Causes of Death	5-Year Cumulative	Average per year
Diabetes	424	85
Cancer (All Types)	165	33
Pneumonia	106	21
Cardiovascular Disease	72	14
Septicemia	40	8
Source: Office of Health Planning Policy and Statistics, RMI Ministry of Health		

Furthermore, the Pacific Regional Central Cancer Registry (PRCCR) showed that from 2007 to 2012, the crude incidence rate of cancer in the RMI was 172.9 (Table 2) with cervical, lung, and breast cancers as top three sites.[4] It is important to note that there may be missing cases due to a variety of historical barriers as well as lack of resources for diagnosis and staging. The RMI also has the highest rate of cervical cancer in the world.

The number of newly diagnosed cases of cancer has not significantly changed in recent years. In the past ten years, an average of fifty-seven (57) new cancer cases was diagnosed each year (Figure 2). While mortality remains high, the number of people living with cancer increased from 36 per 10,000 in 2009 to 90 per 10,000 in 2013 (Figure 3). This increase underscores the need to create broader and more relevant care services for cancer survivors.[5]

Table 5: Cancer Incidence 2007-2012

Top 10 Cancer Types	Cases	Crude Rates
Cervical Cancer (Invasive)	55	68.4
Lung and Bronchus	29	17.8
Breast	22	28.6
Liver	19	11.6
Nasopharynx	14	8.6
Ill-defined and unspecified	13	8.0
Prostate	11	13.3
Non-Hodgkin's Lymphoma	11	6.7
Leukemia	11	6.7
Uterus	10	12.4
Colorectal	9	5.5
All Sites	282	172.9
Source: Pacific Regional Central Cancer Registry (PRCCR)		

Figure 2: Number of New Cases

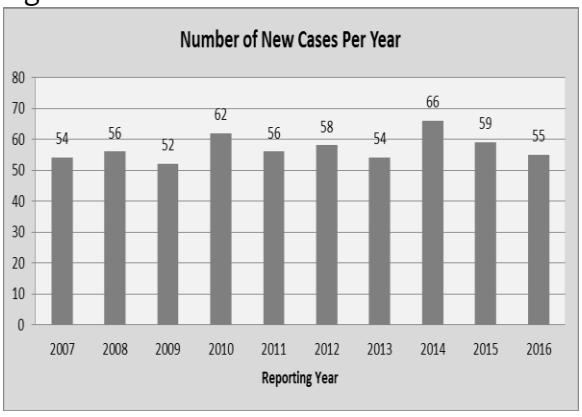
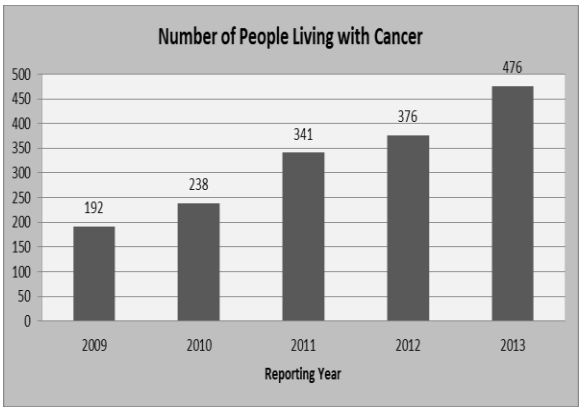


Figure 3: Number of Cancer Survivors

[4] Pacific Regional Central Cancer Registry (PRCCR), 2007-2012

[5] Office of Health Planning Policy and Statistics, Ministry of Health Annual Report 2013



Given the high rates of cervical and breast cancers and the increasing number of people living with cancer, the National Cancer Control Program together with the National Cancer Coalition prioritizes cervical and breast cancer screening and survivorship care in the next five years.

Cancer Prevention Services in the Marshall Islands

The past ten years showed significant progress in cancer prevention and screening efforts in the Marshall Islands. HPV vaccination and adult HBV vaccination services were introduced through the National Immunization Program. Skills-training on clinical breast examination and Pap smear testing was done in Kwajalein in 2010 which increased the number of providers capable of doing breast and cervical cancer (BCCC) screening. Although not yet fully-maximized, new mammogram machines were purchased and installed in both Majuro and Ebeye hospitals within the past three years through strong advocacy work. In 2014, Visual Inspection with Acetic Acid was introduced as a core option for cervical cancer screening which is perceived to have a high potential in improving cervical cancer screening rates in the country. Moreover, records have begun to show improvements in colorectal cancer screening in both Majuro and Ebeye. While still limited, oropharyngeal cancer screening under the dental department (Ebeye) and prostate cancer screening are also available.

Meanwhile, cancer diagnosis and treatment remain generally limited in the Marshall Islands. Other than the general surgeon and OB-GYN, there is high turn-over rate of other medical specialists in the Ministry of Health. On-island oncology services including follow-ups are not available. There is some capacity for cancer treatment on-island such as surgical resection for early cancers, LEEP (Loop Electrosurgical Excision Procedure), and cryotherapy. But advance surgery, radiation and chemotherapy are not available. Furthermore, diagnostic confirmation and advance staging techniques are also inadequately available in the island. Thus, almost all cancer cases are referred off-island to the Philippines and Hawaii for medical management. Off-island referrals to the Philippines are considered only for patients diagnosed early with at least 50% survival rate.

On the other hand, the past 2-3 years showed much interest and effort in improving support and medical care to cancer survivors. A comprehensive assessment on survivorship was completed in 2015 and a survivorship plan was developed in 2016. Palliative care trainings were conducted on at least two occasions and a cancer survivorship group was developed to provide support to people living with cancer.

In summary, we have seen in the past ten years continuous efforts by the Ministry of Health and its partners to improve cancer prevention and treatment services in the Marshall Islands. As a result, people in the Marshall Islands now have access to better cancer services. Nevertheless, there remain some gaps that must be addressed. Table 6 provides an overview of cancer-related programs and services currently available in the Marshall Islands.

Table 6: Cancer Services in the Republic of the Marshall Islands

CANCER PREVENTION	
HPV Vaccination	X
HBV Vaccination	X
CANCER SCREENING	
Breast Cancer Screening (CBE)	X
Breast Cancer Screening (Mammography)	X
Cervical Cancer Screening (VIA)	X
Cervical Cancer Screening (Pap Smear/Cytology)	X
Cervical Cancer Screening (Pap Smear Processing/Cytotechnologist)	X
Cervical Cancer Screening (HPV DNA Testing)	
Colorectal cancer screening (FOBT)	X
Colorectal cancer screening (Colonoscopy)	X
Oropharyngeal cancer selective screening (Oropharyngeal exam)	X
Prostate cancer screening (DRE/PSA)	X
CANCER DIAGNOSIS AND TREATMENT (PROVIDERS)	
Pathologist	X
Radiologist	X
General Surgeon	X
OB-Gyn	X
Surgical subspecialists (e.g. orthopedist)	X
Oncologist	
CANCER DIAGNOSIS AND TREATMENT (SERVICES)	
Computed Tomography Scans	X
Diagnostic Ultrasonography	X
Cryotherapy and/or LEEP	X
On-island chemotherapy	
On-island radiation therapy	
Off-island referral to Philippines for diagnosis/treatment	X
Off-island referral to Hawaii for diagnosis/treatment	X
Off-island referral to U.S. Mainland for diagnosis/treatment	
CANCER SURVIVORSHIP AND PALLIATIVE CARE	
Care coordination	
Survivorship care plans	
Cancer recurrence surveillance and screening	X
Nutrition services	
Physical activity services (including physical therapy)	X
Family and caregiver support	X
Psychosocial assessment and care	
Social and spiritual support group	X
Symptoms management	X
Patient navigation	
Late effects of cancer and treatment education	X
Skills training	
Palliative Care Teams	X
Pain Specialist and Medications	X

Primary Prevention

Nutrition, Physical Activity and Tobacco Use

In 2015, the NCCCP collaborated with the NCD Program to conduct an assessment on chronic disease risk factors (nutrition, physical activity, and tobacco) using CDC's CHANGE Tool as shown in Tables 6-11 below.[6]

Table 6: Community Health Assessment and Group Evaluation (CHANGE) – Majuro 2015

	LOW		MEDIUM		HIGH
Community At-Large Sector	0-20%	21-40%	41-60%	61-80%	81-100%
Physical Activity		P:33 E:35			
Nutrition		P:20 E:32			
Tobacco			E:46		P:82
Note: P=Policy and E=Environmental					

Table 7: Community Health Assessment and Group Evaluation (CHANGE) - Kwajalein 2015

	LOW		MEDIUM		HIGH
Community At-Large Sector	0-20%	21-40%	41-60%	61-80%	81-100%
Physical Activity				P:63 P:68	
Nutrition			P:55 E:57		
Tobacco		E:34	P:44		
Note: P=Policy and E=Environmental					

Table 8: CHANGE TOOL Scoring System

Response#	POLICY	ENVIRONMENT
1	Not identified as problem	Elements not in place
2	Problem identification/gaining agenda status	Few elements in place
3	Policy formulation and adoption	Some elements are in place
4	Policy implementation	Most elements are in place
5	Policy evaluation and enforcement	All elements in place
99	Not applicable	Not applicable

[6] RMI NCD Needs Assessment Report 2015

Table 9: CHANGE Tool Score: Physical Activity (Majuro, 2015)

To what extent does the community:	Policy Response #	Environment Response #
1. Require sidewalks to be built for all developments (e.g., housing, schools, commercial)?	2	1
2. Adopt a land use plan?	1	1
3. Require bike facilities (e.g., bike boulevards, bike lanes, bike ways, multi-use paths) to be built for all developments (e.g., housing, schools, commercial)?	1	1
4. Adopt a complete streets plan to support walking and biking infrastructure?	1	1
5. Maintain a network of biking routes (e.g., institute a sidewalk program to fill gaps in the sidewalk)?	1	1
6. Maintain a network of biking routes (e.g., institute a bike lane program to repave bike lanes when necessary)?	1	1
7. Maintain a network of parks (e.g., establish a program to repair and upgrade existing parks and playgrounds)?	3	3
8. Provide access to parks, shared-use paths and trails, or open spaces within reasonable walking distance of most homes?	1	1
9. Institute mixed land use?	1	1
10. Require sidewalks to comply with the Americans with Disabilities Act (ADA) (i.e., all routes accessible for people with disabilities)?	4	3
11. Provide access to public recreation facilities (e.g., parks, play areas, community and wellness centers) for people of all abilities?	1	1
12. Enhance access to public transportation (e.g., bus stops, light rail stops, van pool services, subway stations) within reasonable walking distance?	99	99
13. Provide street traffic calming measures (e.g., road narrowing, central islands, roundabouts, speed bumps) to make areas (e.g., neighborhoods, major intersections) where people are or could be physically active?	1	3
14. Adopt strategies (e.g., neighborhood crime watch, lights) to enhance personal safety in areas (e.g., playgrounds, parks, bike lanes, walking paths, neighborhoods) where people are or could be physically active (e.g., walk, bike)?	1	2
Column Total:	19	20
Physical Activity Score:	32.76%	35.09%
Rate:	Low	Low

Table 10: CHANGE Tool Score: Nutrition (Majuro, 2015)

To what extent does the community:	Policy Response #	Environment Response #
1. Adopt strategies to encourage food retailers (groceries and stores) to provide healthy food and beverage options (e.g. fresh produce)?	1	3
2. Encourage community gardens?	1	2
3. Enhance access to public transportation to supermarkets and large grocery stores?	1	1
4. Provide access to farmers' market?	1	2
5. Accept Women, Infants, and Children (WIC) Farmer's Market Nutrition Program vouchers or food stamps benefits at local farmers' markets?	99	99
6. Connect locally grown foods to local restaurants and food venues?	1	2
7. Promote (e.g. signage, product placement, and pricing strategies) the purchase of fruits and vegetables at local restaurants and food venues?	1	1
8. Institute healthy food and beverage options at local restaurants and food venues?	1	3
9. Institute nutritional labeling (e.g. low fat, 'light', heart healthy) at local restaurants and food venues?	1	1
10. Provide smaller portion sizes at local restaurants and food venues?	1	1
11. Ban local restaurants and retail food establishments from cooking with trans fats?	1	1
12. Adopt strategies to recruit supermarkets and large grocery stores in underserved areas (e.g. provide financial incentives)?	1	1
13. Provide comfortable private spaces for women to nurse or pump in public places (e.g. government buildings, restaurants) to encourage residents' ability to breastfeed?	1	1
14. Protect a woman's right to breastfeed in public places?	99	99
Column Total:	12	19
Nutrition Score:	20%	32%
Rate:	Low	Low

Table 11: CHANGE Tool Score: Tobacco (Majuro, 2015)

To what extent does the community:	Policy Response #	Environment Response #
1. Institute a smoke-free policy 24/7 for indoor public places?	5	2
2. Institute a tobacco-free policy 24/7 for indoor public places?	5	2
3. Institute a smoke-free policy 24/7 for outdoor public places?	5	2
4. Institute a tobacco-free policy 24/7 for outdoor public places?	5	2
5. Ban tobacco advertisement (e.g., restrict point-of-purchase advertising or product placement)?	5	3
6. Ban tobacco promotions, promotional offers, and prizes?	5	4
7. Regulate the number, location, and density of tobacco retail outlets?	3	3
8. Restrict the placement of tobacco vending machines (including self-service displays)?	99	99
9. Enforce the ban of selling single cigarettes?	4	2
10. Increase the price of tobacco products and generate revenue with a portion of the revenue earmarked for tobacco control efforts (e.g., taxes, mitigation fees)?	3	2
11. Provide access to a referral system for tobacco cessation resources and services, such as a quit line (e.g., 1-800-QUIT-NOW)?	1	1
Column Total:	41	23
Tobacco Use Score:	82%	46%
Rate:	High	Medium

The NCD assessments identified gaps in primary prevention efforts and findings were used to inform two NCD plans: 1) the *Majuro NCD Community Action Plan* which is being implemented by the National NCD Coalition (NCDC) and 2) the *DIAK Plan II* that is being implemented by the Kwajalein DIAK Coalition (KDC) and Ebeye Community Health Center.[7,8] The NCCCP and the National Cancer Coalition are actively involved in these efforts.

The National NCD Program and NCD Coalition (including KDC) serve as the lead in all primary prevention efforts in relation to the Ministry of Health. To avoid duplication of efforts, the NCCCP and National Cancer Coalition supports the implementation of these NCD plans as outlined below. Understandably, there will be differences in project timelines as the NCD plans are three-year project period plans from 2016-2019 while this new NCCCP Plan is created for a five-year period from 2017-2022. Thus, it is anticipated that the succeeding NCD Plans (project period 2019-2022) will fill-in the gap between the two programs timelines.

GOAL 1: Reduce the impact of poor diet on cancer incidence and mortality.

Priority Strategies

1.0 Promote and increase access to healthy food and beverages.

Objectives

For specific activities under each objective – please refer to the Majuro NCD Community Action Plan and Kwajalein DIAK Plan.

Objective 1a: By March 2019, promote and sustain at least two Farmers' Markets that operate regularly two times a week.

Objective 1b: By March 2019, at least 50% of major restaurants and supermarkets will offer healthy food options and promotions.

Objective 1c: By March 2019, develop and operate at least three promotional mobile healthy food carts.

Objective 1d: By March 2019, at least 90% of churches will implement "water-only policy" during organized events in Majuro

Objective 1e: By March 2019, at least seven major schools in Kwajalein will implement the healthy school lunch policy.

Objective 1f: By March 2019, develop and maintain at least eight community gardens.

GOAL 2: Reduce the impact of poor physical activity on cancer incidence and mortality.

[7] Majuro NCD Community Action Plan 2016-2019
[8] Kwajalein DIAK Plan II 2016-2019

Priority Strategies

2.0 Promote and increase access to community based physical activity.

Objectives

For specific activities under each objective – please refer to the Majuro NCD Community Action Plan and Kwajalein DIAK Plan.

Objective 2a: By March 2019, build at least two walking pathways.

Objective 2b: By March 2019, develop and maintain at least six walking club programs.

Objective 2c: By March 2019, develop at least one major national health campaign on the benefits of physical activity for preventing and controlling diabetes and other NCDs.

GOAL 3: Reduce the impact of tobacco use and exposure on cancer incidence and mortality.

Priority Strategies

3.1 Conduct surveillance and monitor the enactment of policies and laws related to tobacco control.
3.2 Increase awareness on dangers of tobacco use and promote quitting.
3.3 Promote tobacco-free and smoke-free environment.

Objectives

For specific activities under each objective – please refer to the Majuro NCD Community Action Plan and Kwajalein DIAK Plan.

Objective 3.1a: By March 2017, establish a monitoring system to capture the introduction and enactment of new tobacco-related policies and laws.

Objective 3.1b: By March 2019, conduct regular quarterly surveys every year of existing local and jurisdiction-wide tobacco-related policies and laws utilizing the tracking system.

Objective 3.2a: By March 2019, increase the number of health care providers and systems that fully integrate tobacco use treatment into the clinical and community health workflow.

Objective 3.2b: By March 2019, implement at least two hard-hitting health communications or media campaign that will increase awareness of the dangers of tobacco use and promote quitting.

Objective 3.3a: By March 2017, educate policymakers, health care professionals, allied health workers, and the public of the need for tobacco and smoke-free environments.

Objective 3.3b: By March 2019, launch at least two major media campaigns towards 100% tobacco-free healthcare and school facilities, and community events.

Alcohol Consumption

According to the Kumit Bobrae Coalition survey – the rate of alcohol consumers among youth (age 21 and below) has decreased from 17% in 2008 to 4% in 2014 (13% reduction). However, the reduction was only 1.56% among adult users within the same period (from 12% to 10.44%). Furthermore, KUMIT also reported that there was significant reduction on repeat violations of alcohol sale among vendors and stores. These positive changes were attributed by the coalition to intense efforts on alcohol prevention that primarily targets the youth. However, the coalition reports that much effort still has to be made in order to sustain this progress. Furthermore, new challenges such as the use of *kava* have risen in recent years.

Kumit Bobrae Coalition in partnership with the Single State Agency is the leading non-profit organization that addresses substance abuse in the Marshall Islands. Priority strategies and objectives stated below were adopted from the Kumit Bobrae strategic plan 2017-2022.

GOAL 4: Reduce the impact of alcohol consumption on cancer incidence and mortality.

Priority Strategies

4.1 Increase awareness on dangers of alcohol consumption (and as causation of cancer) and promote quitting.
4.2 Strengthen law enforcement against illegal alcohol sale.
4.3 Implement evidence-based alcohol use prevention programs targeting youth (e.g. parent to child educational program).

Objectives

For specific activities under each objective – please refer to the Kumit Bobrae Strategic Plan.

Objective 4.1: By March 2022, at least one major hard-hitting campaign on dangers of alcohol consumption is made annually.

Objective 4.2: By March 2022, at least 90% of all stores are compliant with alcohol sale and advertisement policies.

Objective 4.3: By March 2022, at least two programs to decrease alcohol among youth are developed and implemented.

HPV and Other Infectious Agents

The Marshall Islands has the distinction of having the highest rate of cervical cancer in the world. With a crude rate of 74 per 100,000, the RMI cervical cancer rate is four-times higher than most USAPI and about ten-times higher compared to the US.[9] Thus, one of the primary targets of the NCCCP is to control transmission of Human Papilloma Virus (HPV) – a precursor of cervical cancer through: vaccination and promotion of condom use. The strategies below will be implemented in partnership with the RMI Immunization Program and the RMI Sexually Transmitted Disease (STD) Prevention Program.

HPV Vaccination in the RMI started in 2009. Since its inception, 2,152 people (mostly girls between ages 10-15 years old) have received at least 2 doses of HPV vaccine. According to recent scientific evidence, two doses of HPV are equally effective as three-dose regimens.[10]

Some of the challenges on HPV vaccination reported by the RMI Immunization Program include: lack of awareness especially among parents about the importance of vaccination against HPV, the lack of involvement of women's groups in promoting vaccination, and the need for stronger partnerships with other health programs.

Meanwhile, child vaccination against Hepatitis B Virus (HBV) – a virus that causes liver cancer remains very high in the Marshall Islands. At least 95% of children have completed the Hepatitis B vaccination series by age two. Unfortunately, it is not the same result with the adult population. Adult vaccinations remain very limited mainly due to lack of available adult vaccines. Liver cancer is the 6th most common cancer in RMI from 2011-2015 (see table 9).
As a collaborative effort between the National Comprehensive Control Program (NCCCP) and the Immunization and STD Prevention programs – the NCCCP incorporates the following selected strategies in the CCC Plan.

GOAL 5: Reduce the impact of HPV and other infectious agents on cancer incidence

[10] https://www.cdc.gov/media/releases/2016/p1020 -hpv-shots.html

Priority Strategies

5.1 Develop and implement vaccination programs in schools and organized child care centers to increase community access to HPV vaccination.
5.2 Maintain efficient childhood Hepatitis B vaccination.
5.3 Increase access to adult Hepatitis B vaccines.
5.4 Implement annual hard-hitting campaigns on condom use in prevention of STDs, cancer, and even death among youth.

Objectives

For specific activities under each objective – please refer to the RMI Immunization Plan and National STD Prevention Plan.

Objective 5.1: By June 2022, the annual complete (two doses) HPV immunization coverage rate of 11-12 years old will increase by at least 5% each year. (Baseline: TBD)

Objective 5.2: By June 2022, the annual complete HBV immunization rate of children by two years of age will be maintained to at least 95%.

Objective 5.3: By June 2022, the adult Hepatitis B vaccination for high-risk individuals will increase by at least 10%. (Baseline: TBD)

Objective 5.4: By June 2022, at least one major hard-hitting campaign on condom use is made annually.

Secondary Prevention

Cervical Cancer Screening and Early Detection

The Marshall Islands has the distinction of having the highest rate of cervical cancer in the world. With a crude and age-standardized rate of 74 per 100,000, the RMI cervical cancer rate is about 4x higher than the entire USAPI and about 10x higher compared to the US (see table 12).

Table 12: Comparison of Cervical Cancer Rates

Country/Region	2007-2011	2007-2014	Comparison to US
RMI	77.6 per 100,000	74.0 per 100,000	10x higher
FSM (Pohnpei)	41.6	39.4	5.5x higher
USAPI*	20.6	18.3	2.5x higher
USA		7.6^	
World^	14.0		
Eastern Africa	42.7		
Melanesia	33.3		

*USAPI 2007-2014 data excludes Chuuk and 2014 American Samoa Cases
^U.S. Cancer Statistics Working Group, *US Cancer Statistics: 1999-2013* Available at: www.cdc.gov/uscs

Moreover, data also showed that 42% of cervical cancer cases die within the 5 years of diagnosis or an overall 5-year survival rate of 58% (see table 13).[11] The Ministry of Health recognizes the significance of this problem and has made numerous efforts to address it. However, the RMI cervical cancer screening rate has only modestly improved to about 36% of targeted women. With that, cervical cancer is considered of highest priority in the new cancer control plan. The goal is to strengthen cervical cancer screening using Visual Inspection with Acetic Acid (VIA) as a focal preventive effort.

Table 13: USAPI Cervical Cancer Survival Rates

Cervical Cancer Stage	5-year Survival Rate
Stage 0	93%
Stage 1A	93%
Stage 1B	80%
Stage 2A	63%
Stage 2B	58%
Stage 3A	35%
Stage 3B	32%
Stage 4A	16%
Stage 4B	15%

Source: Pacific Regional Central Cancer Registry 2007-2014 (unpublished) Adults 20+	% dead within 5 years of diagnosis	5-year Survival
Republic of the Marshall Islands	**42%**	**58%**
Pohnpei State, FSM	46%	54%
Kosrae State, FSM	75%	25%
Yap State, FSM	56%	44%
FSM Total – without Chuuk	50%	50%
Palau	62%	38%
Guam	27%	73%
American Samoa (excludes 2014 cases)	40%	60%
CNMI	29%	71%
USAPI (excludes Chuuk)	40%	60%

Note: The 5-year survival rates by stage were published in the 7th edition of the AJCC staging manual in 2010. These are the most recent statistics available for survival by the current staging system.

Key Assessment Findings

- Need to utilize VIA as primary screening methodology given the widely recognized historical and unresolved challenges with cytology screening in the RMI setting

- Need to implement campaigns evidenced as best practice in the region (e.g. Church to Clinic, Ebeye CHC BCC Legacy Projects) as data showed that significant increase in screening rates are only observed during these type of campaigns

[11] Cervical Cancer in the USAPI: Incidence, 5-year survival and continued challenges, Pacific Regional Central Cancer Registry, 2017.

- Need to increase awareness on burden of cervical cancer in the Marshall Islands through good leadership and involvement of women's groups (e.g. WUTMI)

- Continuous training on cervical cancer screening to health providers and quality assurance protocols are critical

- Shortage of medical supplies due to poor inventory and procurement efforts are perennial challenges

- Outer island communities are particularly vulnerable to poor cervical cancer outcomes due to late screening and diagnosis

Furthermore, population analysis estimates that around 7,500 eligible women should be screened at least once in three to five years to achieve a screening rate of 60%.

GOAL 6: By June 2022, increase the percentage of women ages 21-65 years who had cervical cancer screening at least once in the past three years from 36.4% to 60%

Priority Strategies

6.1 Effectively implement VIA (with or without Cryotherapy) as core cervical cancer screening method.
6.2 Implement hard-hitting campaigns on cervical cancer and screening.
6.3 Navigate women to cervical cancer screening services using evidence-based community campaigns.
6.4 Improve outer-island screening activities through partnership with organizations such as WUTMI and MIMA.
6.5 Continue to address issues related to cytology screening procedures.
6.6 Develop an electronic cervical cancer screening registry.

Objectives and Activities

Objective 6.1: By June 2022, screen at least 2,000 eligible women per year for five years (total of 10,000 women) using VIA.

Activities: convene a Task Group to develop and implement a work plan that includes campaigns, VIA training, supplies management, options for transportation services; develop screening services delivery improvement plan with providers (e.g. provider incentive); and seek possibility of creating mobile clinics

Objective 6.2: By June 2022, conduct at least one major hard-hitting campaign per year (total of 5 campaigns).

Activities: create a Task Group; convene Task Group meetings to develop a plan using surveillance data and other assessment findings; develop campaign materials according to plan; and implement campaign plan (small or mass media) annually

Objective 6.3: By June 2022, navigate at least 1,000 eligible women per year (total of 5,000 women) towards cervical cancer screening.

Activities: hire Patient Navigators to lead planning and implementation of all navigation activities; convene a community-clinical BCC screening Task Group to participate in planning and implementing campaign strategies (e.g. Church to Clinic, Ebeye BCC Legacy Projects); provide training and technical assistance to Task Group; and implement activities

Objective 6.4: By June 2022, screen at least 500 eligible women in the outer-islands per year (total of 2,500 women).

Activities: establish partnership with WUTMI, MIMA, 177 Health, and DOE; develop plan, schedule and registry for outer-island screening; implement plan; and provide training to outer-island midwives

Objective 6.5: By June 2020, screen by Pap smear at least 500 eligible women per year for three years (total of 1,500 women).

Activities: fill-up vacant posts for pathologists; conduct again cytology training; improve registry in the laboratory; develop and implement a plan to improve delivery of results to patients

Objective 6.6: By September 2017, establish an electronic cervical cancer screening registry

Activities: partner with MOH IT department to install Chronic Disease Electronic Management System (CDEMS) program in Majuro and Ebeye Hospital; conduct training for cancer program staff (including registrars) on use of CDEMS; and submit quarterly CDEMS report to program director for monitoring

Breast Cancer Screening and Early Detection

Breast cancer is the third most common cancer in RMI (see table 5). Like cervical cancer, it is a type of cancer that is preventable through screening and early detection. Unfortunately, breast cancer in the Marshall Islands is associated with high mortality rates mainly due to late diagnosis. Furthermore, breast cancer screening activities in the Marshall Islands has been historically very low (rate is only 7.8% on 2013). For many years, the mammography machine in Majuro Hospital has been damaged and out of use. Meanwhile, Ebeye Hospital did not have any mammogram machine until recently. Thus, providers resort to clinical breast examinations (CBE) as a means to screen for breast cancer. CBEs are less sensitive and specific, not to mention cumbersome for providers to do. Cultural factors also play a role as female patients mostly prefer female providers to do the examinations.

Through the advocacy of the NCCCP, the Ministry of Health has finally purchased and installed brand-new mammography units in both Majuro and Ebeye hospitals on 2015 and 2016 respectively. While both hospitals still need to provide additional training to its radiology staff, mammogram screening services are expected to be fully operational in RMI by 2017.

Key Assessment Findings

- The radiologist post in Majuro Hospital remains vacant. Hiring of a radiologist is critical to avoid sending images to off-island institutions for reading which is both time-consuming and costly.
- Training for radiology technicians is highly necessary to improve the quality of mammography procedures. This is also important to maintain good functioning equipment.
- Only 200 mammography procedures are done in the past year mainly because there is no radiologist to interpret the images. Additionally, there are no written protocols yet for mammography services.
- Clinical Breast Examinations (CBE) will still play a role on breast cancer screening services in the outer-islands. Currently, there are adequate staffs in both Majuro and Ebeye hospitals that can perform CBEs.

GOAL 7: By June 2022, increase the percentage of women ages 20-75 years with updated breast cancer screening from 7.8% to 30%

Priority Strategies

7.1 Effectively implement mammography screening in the main islands of Majuro and Ebeye.
7.2 Effectively implement CBEs in the outer-islands.
7.3 Implement hard-hitting campaigns about breast cancer and screening.
7.4 Navigate women to breast cancer screening services using evidence-based community campaigns.

7.5 Improve capacity for diagnostic ultrasonography as adjunct for breast cancer diagnosis.
7.6 Develop an electronic breast cancer screening registry.

Objectives and Activities

Objective 7.1: By June 2022, screen at least 1,000 eligible women per year for five years using mammogram (total of 5,000 women).

> Activities: fill-up vacant posts for radiologist; provide training for radiology technicians (especially female staffs); develop standards and protocols for mammography services; develop and implement community-based campaigns in partnership with cancer coalitions, CSG and WUTMI/KIJLE (e.g. C2C)

Objective 7.2: By June 2022, screen at least 500 eligible women in the outer islands per year for five years using Clinical Breast Exam (total of 2,500 women).

> Activities: establish partnership with WUTMI, MIMA, 177 Health, and DOE; develop plan, schedule and registry for outer-island screening; implement plan; and provide training to outer-island midwives

Objective 7.3: By June 2022, conduct at least three hard-hitting campaigns on breast cancer screening.

> Activities: create a Task Group; convene Task Group meetings to develop a plan using surveillance data and other assessment findings; develop campaign materials according to plan; and implement campaign plan (small or mass media) annually

Objective 7.4: By June 2022, navigate at least 500 eligible women per year towards breast cancer screening (total of 2,500 women).

> Activities: hire Patient Navigators to lead planning and implementation of all navigation activities; convene a community-clinical BCC screening Task Group to participate in planning and implementing campaign strategies (e.g. Church to Clinic, Ebeye BCC Legacy Projects); provide training and technical assistance to Task Group; and implement activities

Objective 7.5: By June 2020, diagnostic ultrasonography services are available in Majuro and Ebeye hospitals.

> Activities: provide training for radiologists, general surgeons, and other specialists through partnership with UAMS and Canvasback mission; develop screening services delivery improvement plan with providers (e.g. provider incentive, assessment and feedback to increase service delivery by healthcare providers)

Objective 7.6: By September 2017, establish an electronic breast cancer screening registry.

> Activities: partner with MOH IT department to install CDEMS program in Majuro and Ebeye Hospital; conduct training for cancer program staff (including registrars) on use of CDEMS; and submit quarterly CDEMS report to program director for monitoring

Colorectal Cancer Screening and Early Detection

Colorectal Cancer (CRC) is also one of the most common cancers in the Marshall Islands (see table 5). Although not as common as cervical or breast cancers – colorectal cancer is one of few cancer types that has well-established screening models for early detection. Sadly, just like most other cancers in RMI, diagnosis is usually late and mortality high. In 2013, chart reviews showed that CRC screening rate in RMI is just 6.4% of eligible patients. While Fecal Occult Blood Test (FOBT) screening began in Ebeye back in 2010, screening in Majuro only took off in 2014.

Meanwhile, efforts are being made to make colonoscopy available in RMI hospitals for screening. Currently, colonoscopy procedures are only used for diagnostic confirmation and not for screening.

Key Assessment Findings

- The National Cancer Screening Standards (that includes screening guidelines for colorectal cancer) needs to be continually communicated and promoted to clinicians to increase requests for screening.

- The program needs a clinical champion to effectively advocate CRC screening to health providers and patients. In Ebeye, a general surgeon is very active in screening patients and positively influences other clinicians to help screen patients.

- The main barrier to improve FOBT screening in Majuro is lack of coordination and protocols between laboratory and point of care where tests are requested. As a result, FOBT test kits expire and are wasted. On the contrary, the common challenge in Ebeye is shortage of FOBT test kits (procurement issues).

- Another significant barrier identified is that many patients are not comfortable with fecal testing. It was surmised that this is due to lack of awareness and health education.

- Both Majuro and Ebeye hospitals have colonoscopy and/or sigmoidoscopy units. In Majuro, the equipment is underutilized due to lack of technical expertise. While in Ebeye, the equipment needs replacement and is mainly used for diagnostic confirmation procedure (to examine patients with a positive FOBT and are suspected for colorectal cancer).

- There are no existing screening registries or good databases. FOBT screening data are mostly in the laboratory logbooks and patient medical chart documentation is inconsistent.

GOAL 8: By June 2022, increase the percentage of patients ages 50-75 years with updated colorectal cancer screening from 6.4% to 20%

Priority Strategies

8.1 Increase screening using FOBTs.
8.2 Improve utilization of colonoscopy units.
8.3 Develop CRC screening registry.

Objectives and Activities

Objective 8.1: By June 2022, screen at least 1,000 persons per year using FOBT (total of 5,000 persons).

> Activities: establish a protocol for CRC screening patient flow (e.g. where are samples taken); identify a clinical champion; hire a patient navigator and create a task group; develop an annual work plan that addresses promotion, coordination, education, and supplies (campaigns); provide incentives; collaborate with churches, men's groups, and work sites and do small media campaigns; and collaborate with WUTMI, 177 Health, and DOE Clinic for outer-island screening

Objective 8.2: By June 2022, screen at least 100 at-risk patients using colonoscopy (baseline is 5 per year).

> Activities: advocate for new equipment (Ebeye); provide training for clinicians (Majuro); establish protocols for screening activities; develop in-reach health education strategies (e.g. brochures) for patients to access services; and provide incentives

Objective 8.3: By September 2017, establish an electronic colorectal cancer screening registry.

> Activities: partner with MOH IT department to install CDEMS program in Majuro and Ebeye Hospital; conduct training for cancer program staff (including registrars) on use of CDEMS; and submit quarterly CDEMS report to program director for monitoring

Oral and nasopharyngeal Cancer Screening and Early Detection

From 2011-2015, nasopharyngeal cancers (NPC) are the seventh most common cancers in the Marshall Islands (see table 14). Meanwhile, oral cancers are the 11th most common. Screening for oral, nasal, and pharyngeal cancer is one of the stated national targets of the 2007-2012 NCCCP Plan. However, it was only implemented to some extent by the Ebeye Community Health Center (ECHC). The health center through its dental department adopted protocols and standards for selective screening of oropharyngeal cancers. Their primary targets for screening were only dental patients who have high-risk for oral or pharyngeal cancers (e.g. heavy smokers and betel nut chewers). From 2007 to 2014, data showed increasing number of dental clinic patients being screened for cancer. During the period, almost 80% of all nasopharyngeal cancer cases in Ebeye have been initially suspected through this process.

Table 14: RMI Incidence of Cancer, 2011-2015

	2011		2012		2013		2014		2015		
Cancer Site	M	F	M	F	M	F	M	F	M	F	Total
#1 Cervix	•	9	•	5	•	13	•	18	•	20	65
#2 Lung	1	3	4	1	4	2	5	1	4	2	27
#3 Uterus	•	5	•	4	•	2	•	8	•	4	23
#4 Skin	5	1	6	•	2	•	2	•	5	•	21
#5 Breast	•	2	•	2	•	4	1	4	•	5	18
#6 Liver	5	•	2	1	3	1	3	1	1	•	17
#7 Nasopharynx	6	•	2	•	2	•	1	•	1	1	13
#8 Ovary	•	•	•	3	•	3	•	2	•	3	11
#8 Colorectal	•	1	1	1	1	2	3	1	•	1	11
#10 Leukemia	1	1	2	1	1	2	•	•	1	•	9
#11 Oral	2	•	3	•	•	•	•	•	•	2	7
#11 Lymphoma	•	2	1	•	1	•	1	•	1	1	7

Source: RMI National Cancer Registry, Ministry of Health

Key Assessment Findings

- The National Cancer Screening Guidelines do not include oral and nasopharyngeal cancer screening. These should be considered in future review of the national standards.

- Majuro Atoll Healthcare Services (MAHCS) needs to provide training to its dental department in order to develop the screening program. Meanwhile, Ebeye's dental program will need similar training to improve its screening services.

- Ebeye's oropharyngeal cancer screening protocol only selects high-risk individuals for screening. This is followed by routine referral of heavy smokers and betel nut chewers to the substance abuse program for counseling (primary prevention).

- Only few cancers are captured in the early stages. Possible factors identified include: the still low numbers of people screened (low sampling); lack of clinical expertise (need for training); and issues on effectivity of the methods employed.

GOAL 9: By June 2022, screen at least 500 patients per year who are at high risk for oral and nasopharyngeal cancers.

Priority Strategies

9.1 Provide training opportunities and adopt evidence-based guidelines for oral and nasopharyngeal cancer screening.
9.2 Develop oral and nasopharyngeal cancer screening registry.

Objectives and Activities

Objective 9.1: By June 2020, increase the number of dental departments effectively implements oropharyngeal cancer screening from 0 to 2.

Activities: provide training for dental department directors; establish a protocol for oropharyngeal

cancer screening; include protocols into the RMI National Cancer Screening Guidelines; strengthen partnership between dental department and substance-abuse programs; develop and implement a plan to promote and improve oropharyngeal cancer screening; develop promotional materials; and partner with Taiwan Health and University of Arkansas Medical Sciences (UAMS) to access training from oropharyngeal surgeons

Objective 9.2.: By September 2017, establish an electronic oropharyngeal cancer screening registry.

Activities: partner with MOH IT department to install CDEMS program in Majuro and Ebeye Hospital; conduct training for cancer program staff (including registrars) on use of CDEMS; and submit quarterly CDEMS report to program director for monitoring

Thyroid Cancer Screening and Early Detection

Historically, thyroid cancers (TC) are one of the most common cancers in the Marshall Islands. From 2002 to 2006, thyroid cancers are consistently in the top five in terms of incidence. Many experts attribute the high rates of TC in the past to the impact of the U.S. Nuclear Testing in the Marshall Islands. A National Cancer Institute study estimated that the nuclear testing program would increase the cancer rate for the entire exposed population by about 9% above the baseline. Specifically, thyroid cancer prevalence was estimated to increase by 200% above baseline.[12] Current data suggests that the incidence of thyroid cancer is not as high as in the past. In a five-year period (2011-2015), only six new cases have been identified.

Much of screening and early detection efforts for thyroid cancers using neck palpation, fine needle aspiration biopsy, laboratory tests, and high-resolution ultrasound imaging are conducted by the Department of Energy (DOE) Clinic that oversees the four-atoll program (Bikini, Enewetak, Rongelap, and Utrik) and by the 177 Health Program for individuals exposed to the 1940s to 1950s nuclear testing.

Currently, DOE Clinic reports the screening rates for the remaining 105 patients under the four-atoll program. There are no reports provided by 177 Health.

GOAL 10: By June 2022, maintain thyroid cancer screening rate for DOE patients at 95% annually.

Priority Strategies

10.1 Develop stronger partnership between NCCCP and DOE and 177 Health clinics to promote and monitor thyroid screening.

Objectives and Activities

Objective 10.1a: By June 2020, at least one informational material about thyroid cancer screening will be jointly developed by the NCCCP, DOE Clinic, and 177 Health Program.

Activities: create a Task Group; convene Task Group meetings to develop a plan; develop IEC materials according to plan; utilize materials; provide annual screening reports to NCCCP; and present thyroid screening activities in the annual Cancer Symposium

Objective 10.1b: By September 2017, establish an electronic thyroid cancer screening registry for DOE and 177 Health programs.

Activities: partner with MOH IT department to install CDEMS program in Majuro and Ebeye Hospital; conduct training for cancer program staff (including registrars) on use of CDEMS; and submit quarterly CDEMS report to program director for monitoring

[12] RMI National Comprehensive Cancer Control Plan 2007-2012, page 15.

Cancer Care

Quality Cancer Care is more than just medical treatment. In this section, Cancer Care will be subcategorized into three components for discussion purposes:

i. Curative Care ~ refers particularly to *cancer treatment* such as surgery, chemotherapy, radiotherapy, and other related medical services

ii. Survivorship Care ~ encompasses all types of cancer support services (medical and non-medical) that *improves quality of life* of a cancer survivor who may have or have not received cancer treatment (but excludes end-of-life care)

iii. Palliative Care ~ the *end-of-life care* provided to a terminally-ill or dying patient

Curative Care

Cancer treatment remains as one of the biggest challenges in cancer care in the Marshall Islands. Cancer treatments are only available through off-island medical referrals. There is no oncologist on-island; no radiation therapy, brachytherapy or hormonal therapy options. Maintenance chemotherapy is available but limited. Due to limited resources, off-island referrals to the Philippines and Hawaii are generally considered only for patients diagnosed early with at least 50% five-year survival rate. Recently, policymakers approved to subsidize the cost of follow-up to treatment institutions for cancer patients. This is only a one-time privilege and applicable only within the first year after cancer treatment. Nevertheless, this follow-up privilege can potentially impact treatment success.

Review of data from 2010 to 2015 showed that cancer is the leading reason for off-island medical referral accounting for 20.35% (140 out of 688 referrals) of all referrals. Out of the 140 cancer-related referrals – cervical (35), nasopharyngeal (14), and breast (13) cancers account for 44% (62/140).[13]

Meanwhile, some patients that are eligible for treatment refuse referral because of various reasons. According to health providers – some patients refuse treatment because of: strong belief in traditional medicine, fear, health illiteracy, and lack of appropriate family support to make good decisions. On the other hand, cancer survivors say that one main reason patients refuse treatment off-island is because they do not understand well what the doctors are saying (e.g. linguistic barriers, clinician attitude and communication skill, etc.).[14]

Another main issue in cancer treatment is significant delay in referral from the time a person is suspected of cancer to actual medical travel. Some of the factors identified are: biopsy and other diagnostic procedures (e.g. CT imaging) take a long time to complete; referral process can be tedious and long (for example, approval for Tripler Army Medical Center referrals sometimes takes weeks); and difficulty in locating patients living in the outer-islands.

[13] RMI National Cancer Registry, 2010-2015
[14] A Comprehensive Assessment on Cancer Survivorship Care in the Marshall Islands: Provider and Patient Perspectives

On the other hand, some patients who did receive cancer treatment also reported challenges while being treated off-island. Issues such as lack of adequate spiritual support and translation assistance from MOH liaison staff were identified.

There are some ways that cancer treatment can be delivered on-island. Loop Electrosurgical Excision Procedure (LEEP), Cone Biopsy for pre-cancerous cervical lesions, and total hysterectomy for Stage 1 cervical cancers are all available in the two major hospitals. Recently, the Ministry of Health also introduced cryotherapy for abnormal cervical lesions which is a form of cancer treatment although not highly specific.

GOAL 11: By June 2022, maintain cancer-related annual mortality rate to less than 8 per 10,000 population

Priority Strategies

11.1 Improve patient's ability to make informed decisions.
11.2 Ensure that physicians are well-informed on current cancer treatment guidelines.
11.3 Improve pathway to care from diagnosis to off-island referral.
11.4 Improve follow-up post-treatment.
11.5 Improve capacity to treat pre-cancerous cervical lesions on-island.

Objectives and Activities

Objective 11.1: By June 2020, cancer education is provided to at least 75% of cancer patients and their family within one week of diagnosis.

> Activities: hire care coordinators; train physicians in cancer education and communication; improve translation services; develop protocols for cancer education of patients and families; provide pre-departure counseling; and utilize cancer survivorship care plans

Objective 11.2: By June 2022, at least one cancer summit will be held annually (total of 5).

> Activities: create task group; develop annual plan for symposium or summit; implement plan; conduct post-summit evaluation; and provide training webinars for physicians

Objective 11.3: By June 2022, at least 50% of all cancer patients eligible for referral travelled off-island within four (4) weeks from initial diagnostic consult.

> Activities: hire care coordinators and/or patient navigators; review MRC policies for required diagnostics; advocate with MRC to re-classify cancer cases as semi-emergency or establish processes to ensure timely referrals; advocate with MRC to discuss delay of referrals with TAMC; and coordinate with Chief of Staff and Medical Director to inform providers of target indicators

Objective 11.4: By June 2022, at least 50% of patients who received cancer treatment beginning 2017 will have at least one oncologist follow-up (off-island or on-island) within one year post-treatment.

> Activities: develop plan to implement policy on additional off-island referral for cancer patients; develop partnership with volunteer oncologists from UAMS and City of Hope; allocate funding to support travel and accommodation; and develop protocols for annual visits patterned after Canvasback Medical Missions

Objective 11.5: By June 2022, increase the number of on-island treatment procedures for abnormal or pre-cancerous cervical lesions.

> Activities: convene a task group to develop and implement a work plan to promote VIA and cryotherapy; develop and implement a plan to ensure adequate cryotherapy equipment and supplies; provide refresher's training to providers and specialists; and provide incentives

Survivorship Care

Each year, approximately fifty-seven (57) new cancer cases are diagnosed in the Marshall Islands. While mortality rates remain high, current data shows that the number of people living with cancer is on the rise (see figure 3). This change necessitates broader and more relevant cancer care and support to the growing number of survivors.

In 2015, the National Comprehensive Cancer Control Program (NCCCP) completed its needs assessment on survivorship.[15] The assessment was composed of chart reviews, focus group discussions, and surveys with cancer survivors and health providers.

One of the components of the assessment is to identify the priority needs on survivorship based on the perspective of both provider and patients (see tables 15 and 16). The study revealed that while there are few contrasting views, there is significant alignment between provider and patient's perspectives on the aspects of survivorship care that need to be developed and prioritized.

Table 15: Survivorship Care Priorities, Provider Survey

	Percentage
Care coordination	13 (81.25%)
Survivorship plan	13 (81.25%)
Cancer recurrence surveillance and screening	12 (75%)
Nutrition and physical activity services	9 (56.25%)
Family and caregiver support	8 (50%)
Health promotion and health education	7 (43.75%)
Psychosocial assessment and care	7 (43.75%)
Symptoms management	5 (31.25%)
Educational information on programs	5 (31.25%)
Patient navigation	3 (18.75%)
Late effects of cancer and treatment education	1 (6.25%)
Counseling for practical issues	1 (6.25%)
Self-advocacy skills training and employment	1 (6.25%)

Table 16: Survivorship Care Priorities, Patient Survey

RANK	SURVIVORSHIP CARE NEED	SCORE
1	Have a support group that can help me deal with what I am feeling (psychosocial distress care).	56
2	Have psychological support such as depression screening and counseling that can help me deal with my fear and emotions (psychosocial distress care).	34
3	Have a stronger family support (psychosocial distress care).	32
4.5	Have regular follow-up with doctor to understand late effects of cancer, treatment, and to make sure my cancer has not come back and I feel well (follow-up care/surveillance for recurrence).	28
4.5	Get additional information about survivorship at any time (informational support/education).	28
6	Have a pastor or priest available for spiritual support during critical periods (spiritual support).*	24
7	Have employment support or skills training to help with my finances (practical concern support and self-advocacy).	22
8	Have somebody who can help direct me to medical, counseling, and other services or support groups (care coordination/patient navigation).	20
9	Nutritional services, physical activity services, and weight management to prevent relapse and maintain health (health promotion and intervention).	15
10	Have a copy of my cancer treatment summary and have a survivorship care plan to prevent other cancers and other diseases in order to live longer (survivorship plan). **	9

In 2016, the NCCCP developed and released its RMI Cancer Survivorship Plan 2017-2022 containing priority strategies based on key issues identified in the assessments.[16] This plan is outlined in the section below.

GOAL 12: By June 2022, increase the Quality of Life scores of cancer survivors from 4.56 to 7.0

Priority Strategies

12.1 Develop training and education on cancer survivorship.
12.2 Encourage the use of survivorship care plans.
12.3 Enhance human resource and staffing for survivorship care.
12.4 Develop new support services for cancer survivors.

[15] A Comprehensive Assessment on Cancer Survivorship Care in the Marshall Islands: Provider and Patient Perspectives

[16] RMI Cancer Survivorship Plan 2017-2022

12.5 Promote evidence-based clinical care guidelines related to survivorship among primary care providers.
12.6 Enhance facility access and resources for cancer survivorship care.

Objectives and Activities

Objective 12.1a: By June 2022, provide survivorship education to at least 90% of new cancer patients per year.

Activities: hire care coordinator; develop cancer treatment education protocol, curriculum, and materials; provide training; and monitor and evaluate

Objective 12.1b: By June 2022, hold at least one survivorship workshop each year during the cancer summit (total of 5).

Activities: create task group; develop annual plan for symposium or summit; implement plan; and conduct post-summit evaluation

Objective 12.1c: By June 2022, conduct at least one cancer survivorship campaign each year by the Cancer Survivorship Group (total of 5).

Activities: provide funding support for cancer survivorship groups (CSGs); assist in fundraising activities; develop annual campaign plan or event; conduct family caregivers training; and develop and implement CSG advocacy plan

Objective 12.2: By June 2022, develop cancer survivorship care plans to at least 75% of cancer patients.

Activities: seek technical assistance to develop a standard survivorship care plan for RMI cancer patients; hire and train a care coordinator on the use of care plans; develop an electronic care registry for cancer patients (e.g. CDEMS); and advocate with MOH to create policy requiring off-island treating institutions (or Third-Party Agency) to complete survivorship care plans during and after cancer treatment for all patients

Objective 12.3a: By June 2018, hire at least two patient navigators for care coordination.

Activities: create job descriptions and requirements; allocate funding; release announcement and hire according to Public Service Commission policies; and provide additional training to patient navigators and/or care coordinators

Objective 12.3b: By June 2019, hire at least one psychologist or professional counselor for psychosocial assessment and support.

Activities: create job descriptions and requirements; advocate and allocate funding through MOH General Fund; and release announcement and hire according to Public Service Commission policies

Objective 12.3c: By June 2022, conduct yearly on-site visit by an oncologist for cancer patients (total of 5).

Activities: develop partnership with volunteer oncologists from UAMS and City of Hope; allocate funding to support travel and accommodation; and develop protocols for annual visits patterned after Canvasback Medical Missions

Objective 12.4: By June 2022, establish at least three new support services for cancer survivors.

Activities: adopt, plan, and implement cancer survivorship workshops (e.g. Winthrop Rockefeller Institute workshop); provide continuous training to CSGs; establish spiritual support group (faith-based partnerships) and support strategies (Manu O Ku curriculum); provide access for nutrition and physical activity services for cancer survivors (e.g. Wellness Center; adopt UAMS Dance and Movement Therapy Program); and create partnership with UAMS Cancer Support Home

Objective 12.5a: By June 2018, draft a clinical care guideline on survivorship care.

Activities: seek technical assistance; conduct planning workshop with medical directors and clinicians; drafts clinical care operational guidelines for cancer patients; seek approval of document; and implement guidelines

Objective 12.5b: By June 2019, establish a cancer clinic for regular follow-up.

Activities: advocate with MOH a clinic space or room; designate point cancer provider (physician); develop clinic schedule; utilize survivorship care plan templates; implement clinical care guidelines in clinic; and develop external partnership for annual oncologist visits

Objective 12.5c: By June 2020, conduct at least one significant research study related on cancer survivorship.

Activities: partner with centers (e.g. University of Arkansas Medical Sciences Center for Pacific Island Health, University of Hawaii, Faith in Action research Alliance) for research engagement

Objective 12.6: By June 2022, develop at least three new resources (including facilities) for cancer survivors.

Activities: create informational materials; develop an office for cancer survivorship groups (CSGs) and coalition; access special OTC medications and nutritional supplements for survivors; acquire vehicle for transportation services; and develop fundraising strategies for CSGs and coalitions

Palliative Care

Data review shows that on average; thirty-three (33) Marshallese patients die each year due to cancer.[17] Furthermore, chart reviews in 2013 showed that only 14% of cancer patients who have died have documented palliative care intervention within the last few days or weeks leading to death (acute end-of-life care).[18] The goal of palliative care is to relieve the suffering of patients (and their families) by providing physical, psychosocial, and spiritual support especially during moments leading to death when a patient's symptoms may require more aggressive palliation.[19]

There are ongoing efforts by the NCCCP to improve palliative care services in the RMI by providing palliative care trainings to providers and formation of palliative care teams. There were also past recommendations to improve pain scale methodologies. However, much effort and understanding are still needed to provide appropriate palliation to a dying patient in the present setting.

GOAL 13: By June 2022, provide palliative care to at least 75% of cancer patients who need end-of-life care in RMI hospitals

Priority Strategies

13.1 Increase knowledge and information about palliative care.
13.2 Implement effective end-of-life palliative care services to cancer patients.

Objectives and Activities

Objective 13.1: By June 2022, conduct at least three palliative care trainings for providers.

Activities: complete one local study on Marshallese concept of death and dying; and provide palliative care training during annual cancer summit

Objective 13.2: By June 2020, maintain at least two palliative care teams (one each in Majuro and Ebeye hospitals) that implements end-of-life clinical care protocols.

Activities: conduct refresher's training; develop palliative care standard guidelines; re-establish teams; and provide funding to support team activities

[17] Office of Health Planning Policy and Statistics, 2009-2013 Ministry of Health Report
[18] A Comprehensive Assessment on Cancer Survivorship Care in the Marshall Islands: Provider and Patient Perspectives
[19] Robin Rome, et.al. The Role of Palliative Care at the End of Life. The Ochsner Journal, 2011, 11(4), 348-352.

Cancer Registry

The RMI National Cancer Registry (NCR) is one of the best performing registries under the Pacific Regional Central Cancer Registry (PRCCR). Established on 2007, the RMI NCR has completed and updated data from 2007 to 2014. Moreover, fifty-percent of cancer cases in 2015 have also been updated. The current National Cancer Registrar is one module away from completing her training on tumor registry. Once completed, she will become one of only two U.S. certified tumor registrars in the USAPI. Ebeye Community Health Center also keeps track and maintain cancer cases data and submits them to the NCR. The RMI NCR actively participates in all data quality assurance activities of the PRCCR. Three years ago, the NCCCP initiated a medical provider training to improve death certificate records which helped a lot in improving data collection of the NCR. However, due to staff turnover, many of the new doctors again lacked the training on death certificate recording and needs to undergo the same training.

GOAL 14: By June 2022, complete and maintain at least 15 years of quality cancer data using the RMI Cancer Registry

Priority Strategies

14.1 Maintain and improve quality cancer registry database and reporting.
14.2 Improve use of cancer notification form.
14.3 Improve death certificate records.
14.4 Improve utilization of cancer data.

Objectives and Activities

Objective 14.1a: By June 2022, continue to submit annual cancer data to NCCCP Director.

Activities: develop and submit quarterly report to NCCCP Director; and develop and submit annual report to Ministry of Health OHPPS

Objective 14.1b: By June 2022, continue to participate in annual PRCCR assessment, reporting, quality assurance, and audit activities.

Activities: train new staff for NCR; continue adopting and implementing PRCCR annual work plan; and submit audit reports to NCCCP director

Objective 14.2a: By June 2020, at least 90% of all cancer cases will have cancer notification forms.

Activities: re-introduce cancer notification form to Majuro medical staff and DOE Clinic; provide feedback to Medical Director and Chief of Staff on provider compliance; and provide incentives to physicians

Objective 14.3a: By June 2020, at least 90% of all physicians have updated training on death certificate recording.

Activities: provide training during annual cancer summit or symposium; conduct provider feedback; and provide incentives

Objective 14.4a: By June 2018, a ten-year (2007-2016) cancer data statistical report and infograph is completed and distributed.

Objective 14.4b: By June 2022, a fifteen-year (2007-2021) cancer data statistical report and infograph is completed and distributed.

Activities: seek technical assistance for statistical report; develop Infographs and other informational materials; and disseminate reports to MOH and other agencies

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