



U.S. DEPARTMENT OF
ENERGY

Republic of the Marshall Islands Special Medical Care and Logistics Program

Report to Congress
August 2018

United States Department of Energy
Washington, DC 20585

Message from the Associate Under Secretary for Environment, Health, Safety and Security

The U.S. Department of Energy Republic of the Marshall Islands Special Medical Care and Logistics Program provides annual medical screening examinations and care for members of the population of Rongelap and Utrik exposed to radiation resulting from the 1954 U.S. thermonuclear weapons test code-named "Castle Bravo." There were 253 people on Rongelap and Utrik during the 1954 test. There were 105 individuals eligible for participation in the program as of October 1, 2016.

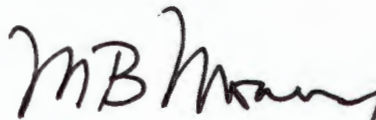
This report presents a summary of the work conducted under a cooperative agreement with International Outreach Services for fiscal year (FY) 2017.

This report is being provided to the following Members of Congress:

- The Honorable Richard Shelby
Chairman, Senate Committee on Appropriations
- The Honorable Patrick Leahy
Vice Chairman, Senate Committee on Appropriations
- The Honorable Lamar Alexander
Chairman, Subcommittee on Energy & Water Development
Senate Committee on Appropriations
- The Honorable Dianne Feinstein
Ranking Member, Subcommittee on Energy & Water Development
Senate Committee on Appropriations
- The Honorable Rodney P. Frelinghuysen
Chairman, House Committee on Appropriations
- The Honorable Nita M. Lowey
Ranking Member, House Committee on Appropriations
- The Honorable Mike Simpson
Chairman, Subcommittee on Energy & Water Development
House Committee on Appropriations
- The Honorable Marcy Kaptur
Ranking Member, Subcommittee on Energy & Water Development
House Committee on Appropriations

If you have any questions or need additional information, please contact Dr. Patricia R. Worthington, Director, Office of Health and Safety, within the Office of Environment, Health, Safety and Security, at (301) 903-5926; or Ms. Bridget Forcier, Office of the Chief Financial Officer, at (202) 586-0176.

Sincerely,

A handwritten signature in black ink, appearing to read "MB Moury". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Matthew B. Moury
Associate Under Secretary for
Environment, Health, Safety and Security

Executive Summary

The Department of Energy's (DOE's) Republic of the Marshall Islands (RMI) Special Medical Care and Logistics Program (DOE's RMI Special Medical Care Program) is a medically, culturally, and logistically complex service program for an eligible participant population of 105 individuals with an average age of 68 years as of October 1, 2016. The care provided includes local community-based medical services; medical care as needed at the U.S. Army base hospital on Kwajalein Island (Kwajalein Hospital); and medical care at locations outside the RMI for services that are not currently available in the RMI.

DOE's RMI Special Medical Care Program pays for patient out-of-country medical referrals that include diagnosis, treatment, care, and follow-up visits, principally under a subcontract with the Queen's Medical Center in Honolulu, Hawaii. Of the four referrals in fiscal year 2017, one patient, who was referred due to pain in the breast area, received radiation treatment for breast cancer. The three other patients were referred for annual follow-up examinations for breast cancer, and the results were benign. Patients residing in the continental United States (CONUS) were provided access to medical services within their own communities or at the nearest source of the needed care.

Outside medical professionals, working under the DOE's RMI Special Medical Care Program, conduct Continuing Medical Education sessions. These sessions are for RMI medical staff, including RMI Government physicians and nurses. Other support services include paying transportation and travel expenses for patient escorts.



REPUBLIC OF THE MARSHALL ISLANDS SPECIAL MEDICAL CARE AND LOGISTICS PROGRAM

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I. Legislative Language

The Department of Energy (DOE) is directed by 43 U.S.C. Section 1933(k) to provide the Committees on Appropriations of the House and Senate with a report by December 1 of each year detailing how funds were spent during the previous fiscal year for the special health care and logistics program for Rongelap and Utrik referenced in Section 103(h)(1) of Public Law 99-239 [48 U.S.C. 1903(h)(1)]. The report is also required to specify the anticipated needs during the current and subsequent fiscal years to conduct the radiological health care and logistics program for Rongelap and Utrik.

II. Introduction

The DOE's Republic of the Marshall Islands (RMI) Special Medical Care and Logistics Program provides annual medical screening examinations and care for members of the populations of Rongelap Atoll and Utrik Atoll exposed to radiation resulting from the March 1, 1954, U.S. thermonuclear weapons test code-named "Castle Bravo." There were 253 people on Rongelap and Utrik during the test. There were 105 individuals eligible for participation in the program as of October 1, 2016.

The Department's RMI Special Medical Care Program is a medically, culturally, and logistically complex service program. Each participant is eligible for an annual, comprehensive medical screening examination and treatment of potential radiation-related conditions (cancers). Most participants in the program have other medical conditions that are outside the scope of the DOE's RMI Special Medical Care Program, but which are addressed by another U.S.-funded health care program (i.e., the "177 Health Care Program") and the RMI national health care program. For example, about 69 percent of the DOE patient population have adult onset diabetes and 69 percent have other associated conditions, such as hypertension, that are covered by other, non-DOE medical care programs. Although the DOE RMI Special Medical Care Program does not provide complete care for diabetics, the program physicians provide basic diabetes supportive care and refer people with diabetes-related medical needs to the RMI national health care system.

The Department's RMI Special Medical Care Program is culturally complex because there are very few physicians who speak Marshallese or who understand the cultural context and social rules of conducting a medical examination of the Marshallese patients. The language barrier makes it difficult for non-Marshallese-speaking physicians to communicate with these patients. A family member or companion who speaks English escorts the patients during referrals to medical facilities outside the RMI or to specific examination sites within the RMI, where the U.S. Army hospital is located.

DOE must transport patients and escorts from place to place for examinations and treatments within the RMI, continental United States (CONUS), and Hawaii. Given the ages and physical

conditions of the patients, many individuals require medical and/or family escorts for personal assistance and monitoring. The escorts receive the same travel and per diem benefits as the patients.

DOE's RMI Special Medical Care Program is logistically complex because of the atoll settlement patterns of the Marshallese patients and the fact that 33 percent of the 105 eligible patients have migrated to the United States. Providing medical care to each geographic subgroup requires special logistic considerations. The care provided includes local community-based medical services, medical care as needed at the U.S. Army base hospital on Kwajalein Island (Kwajalein Hospital), and medical care services that are not currently available in the RMI.

III. Medical Services

DOE's RMI Special Medical Care Program provides services to program-eligible patients residing in the RMI, Hawaii, and CONUS.

Of the 105 eligible patients in the program:

- The 105 patients were scheduled for medical examinations in FY 2017.
- A total of 79 patients received examinations; however, two of these patients died later in FY 2017.
- The remaining 26 patients were not examined in FY 2017 for the following reasons:
 - Four patients died prior to receiving an exam;
 - Two patients changed their residences without providing forwarding addresses;
 - Five patients refused exams; and
 - Fifteen patients were not examined due to local equipment failure.

This exam completion rate represents 75 percent of eligible patients receiving an annual examination, a 17 percent decrease over last year. None of the six patients that died in FY 2017 died from cancer.

DOE's RMI Special Medical Care Program also pays for out-of-country medical referrals, which include diagnoses, treatment, care, and follow-up visits under a subcontract with The Queen's Medical Center in Honolulu. Four patients were referred to The Queen's Medical Center. One patient, with a suspicion of cancer, was referred for evaluation and treatment; results were benign and the patient returned to the RMI. The other three patients were referred for annual follow-up examinations for breast cancer. No cancer was detected during the examinations.

In addition to the clinics available in Majuro and Kwajalein that serve eligible patients residing in Majuro and on Ebeye Island, eight in-home visits to provide annual exams were made to homebound patients residing in these locations who were physically unable to visit the clinics. In April 2017, program medical staff travelled to Utrik Atoll to visit patients who reside on the

atoll. These visits allowed the program physicians to examine the patients and interact with them and other family members in the household. Quarterly home visits were also performed by program physicians for all eligible patients residing on Majuro and Ebeye Island as a courtesy follow-up.

The program staff arranged appointments for patients residing in Hawaii and CONUS with temporary duty physicians when the opportunity was available. For example, when the endocrinologist was traveling through Hawaii en route to/from the RMI, arrangements were made for the patients in Hawaii to receive thyroid examinations.

The Army's Kwajalein Hospital experienced mammography equipment failure, therefore all eligible female patients were sent to Honolulu for their annual examinations or their exams were rescheduled in FY 2018. Other medical services, such as pharmacy, laboratory, radiology, and mammography, were provided. The program physicians coordinate care and referrals with other health care programs and agencies in the RMI. Patient referrals to Honolulu, Hawaii, are principally to The Queen's Medical Center.

Thyroid disease is of special concern for DOE's RMI Special Medical Care Program because of exposure of Marshallese on Rongelap and Utrik to radioactive iodine in fallout from the Castle Bravo test. Each DOE program participant is offered a thyroid ultrasound examination annually by the program endocrinologist; CONUS patients receive an examination through a clinic near their home. The program endocrinologist visited patients residing in Majuro, Ebeye, and Hawaii in FY 2017 and will continue to visit patients in FY 2018. Traditional manual examination of the thyroid is augmented by ultrasound procedures, which are used by recommendation of the American Thyroid Association and special U.S. taskforces on thyroid screening when abnormalities are identified or symptoms presented. There have been 17 thyroid cancers diagnosed among the Rongelap and Utrik Atoll individuals in the program. About 85 percent of all thyroid cancers diagnosed were detected in the first 28 years after Castle Bravo; one-half of these cancers were detected in the period 1975-79. No thyroid cancer cases have been diagnosed since 1989.

The provision of medical care for the DOE RMI Special Medical Care Program patient population, oversight of the RMI-based clinical staff, and conduct of community meetings with patients require face-to-face interaction. Working under the DOE program, outside medical professionals conduct Continuing Medical Education sessions for RMI medical staff, including RMI Government physicians and nurses.

Logistical support involves travel, per diem, and accommodation arrangements for staff and patients and their escorts traveling between the RMI and Honolulu, Hawaii, or CONUS. Services include providing the medical team with necessary infrastructure, i.e., office facilities, vehicles, and travel support for the program to operate. The program physicians, located in the RMI, donate numerous clinical hours weekly to the RMI Ministry of Health and its hospital.

IV. Logistics Services

DOE's RMI Special Medical Care Program conducts medical operations in the RMI from two clinical facilities. The Department's RMI Special Medical Care Program in Majuro is located in a commercial center in Delap Village within 500 yards of the island's hospital. A second facility is located at Ebeye Hospital per agreement with the RMI Ministry of Health. Kwajalein is used as a staging area for logistics.

V. Program Expenditures

Program costs in FY 2017 and FY 2018 (projected) are summarized in Table 1.

Table 1. Program costs for FY 2017 and projected costs for FY 2018

Program Element	FY 2017	FY 2018 Projected
Medical Care <ul style="list-style-type: none"> Salaries for health professionals and administrative staff; medical supplies and equipment; local hospital and laboratory costs; and pharmaceutical costs. Transport and living costs for patients attending clinics for annual examinations in the Marshall Islands and Hawaii and patient escorts, as needed; travel support for thyroid ultrasound, colonoscopy, mammography, and laboratory work; medical costs for referred patients to Hawaii requiring additional testing and treatment for cancers; maintenance of two clinic facilities; and mammography services through the U.S. Army Hospital/Kwajalein. 	\$1,118,734	\$1,507,796
Medical Referral Travel Costs <ul style="list-style-type: none"> Transport and living costs for patients referred to Honolulu, Hawaii, and patient escorts; stipend for patients living in CONUS who arrange for their own transportation 	\$140,090	\$55,000
Total	\$1,258,824	\$1,562,796

The program's Medical Care costs for FY 2018 are expected to increase because of the effects of aging and concomitant increases in referrals and medical procedures. The estimated reduction in Medical Referral Travel Costs reflects a decrease in the expected average number of days referred patients spend in Honolulu, Hawaii.

VI. Conclusion

As required by law, DOE provided comprehensive annual medical screening examinations in the RMI and in the United States for 79 of 105 eligible persons, and when cancers were detected as a result of these examinations, DOE provided state-of-the-art cancer treatment in the United States. Of the 105 patients in the program, 6 died during FY 2017, leaving 99 remaining eligible participants in the program on October 1, 2017.