



U.S. DEPARTMENT OF
ENERGY

Republic of the Marshall Islands Special Medical Care and Logistics Program

Report to Congress
November 2019

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 98 individuals eligible for participation in the program as of October 1, 2017, the beginning of fiscal year (FY) 2018.

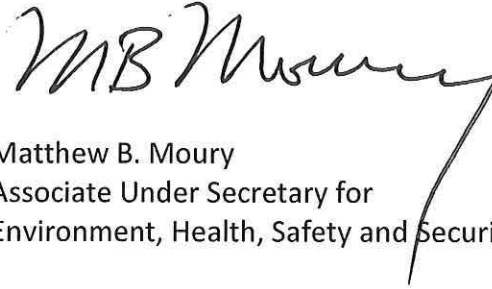
This report presents a summary of the work conducted under a cooperative agreement with International Outreach Services for FY 2018.

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 Nita M. Lowey**
Chairwoman, House Committee on Appropriations
- **The Honorable Kay Granger**
Ranking Member, House Committee on Appropriations
- **The Honorable Lamar Alexander**
Chairman, Subcommittee on Energy and Water Development
Senate Committee on Appropriations
- **The Honorable Dianne Feinstein**
Ranking Member, Subcommittee on Energy and Water Development
Senate Committee on Appropriations
- **The Honorable Marcy Kaptur**
Chairwoman, Subcommittee on Energy and Water Development
House Committee on Appropriations
- **The Honorable Mike Simpson**
Ranking Member, Subcommittee on Energy and 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) 903-6929; or Ms. Katie Donley, Deputy Director for External Coordination, 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 written in a cursive style with a long, sweeping tail that extends downwards and to the right.

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

Executive Summary

The Department of Energy's (DOE) Republic of the Marshall Islands (RMI) Special Medical Care and Logistics Program (Special Medical Care Program) is a medically, culturally, and logistically complex service program for an eligible participant population of 98 individuals with an average age of 69 years as of October 1, 2017. The care provided includes local community-based medical services, 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 five referrals in FY 2018, one patient, who was referred for additional testing/treatment due to a suspicious mass in the lung, died due to pulmonary failure. Two patients were referred for annual follow-up examinations for breast cancer, and the results were benign. One patient was referred for annual follow-up for gum cancer, and the results were benign. One patient was referred for a suspicious nodule in the thyroid; the biopsy was positive for cancer and a thyroidectomy was performed with radiation and iodine treatment. 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 DOE's RMI Special Medical Care Program, also 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.

Of the 98 patients in the program, five died in FY 2018. Of the five who passed away, one died from cancer – leaving 93 remaining eligible participants in the program on October 1, 2018, the beginning of FY 2019.



**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 48 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 medical care and logistical support 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 shall also specify the anticipated needs during the current and following fiscal years in order to meet the radiological health care and logistical support program for Rongelap and Utrik.

II. Introduction

The DOE's Republic of the Marshall Islands (RMI) Special Medical Care and Logistics Program (Special Medical Care 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 98 individuals eligible for participation in the program as of October 1, 2017, the beginning of FY 2018.

The Department's RMI Special Medical Care Program is a medically, culturally, and logistically complex service program. The program is medically complex in that 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 medical examinations of 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.

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 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 98 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 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 98 eligible patients in the program:

- All 98 patients were scheduled for medical examinations in FY 2018.
- A total of 75 patients received examinations. However, three of these patients died later in FY 2018. One of the three patients died from cancer.
- The remaining 23 patients were not examined in FY 2018 for the following reasons:
 - Two patients died prior to receiving an exam;
 - Six patients changed their residences without providing forwarding addresses;
 - Six patients refused exams; and
 - Nine patients were not examined due to local equipment.

This exam completion rate represents 77 percent of eligible patients receiving an annual examination.

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. Five patients were referred to The Queen's Medical Center during FY 2018. Two patients, with a suspicion of cancer, were referred for evaluation and treatment. The other three patients were referred for annual follow-up examinations for breast (2) and gum/oral (1) cancer. Two cancers were 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 September 2018, program medical staff travelled to Utrik Atoll to visit patients who reside on the atoll. These visits allowed 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.

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 2018 and will continue to visit patients in FY 2019. 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. task forces on thyroid screening when abnormalities are identified or symptoms presented. There have been 18 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. In FY 2018, one patient was diagnosed with thyroid cancer; this is the first incident of thyroid cancer 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 2018 and FY 2019 (projected) are summarized in Table 1.

Table 1. Program costs for FY 2018 and projected costs for FY 2019

Program Element	FY 2018	FY 2019 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. 	\$1,330,301	\$1,550,036
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. 	\$118,520	\$100,000
Total	\$1,448,821	\$1,650,036

The program’s Medical Care costs for FY 2019 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 75 of 98 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 98 patients in the program, five died during FY 2018, leaving 93 remaining eligible participants in the program on October 1, 2018.

SUBJECT: Annual Report to Congress on Marshall Islands Medical Program

1. Program office SME, with e-mail and phone number:

**Patricia Worthington, Director, AU-10, 3-6929; Pat.worthington@hq.doe.gov
and Stephen Schayer, Marshall Islands Program Manager, AU-13, 3-4501,
Stephen.schayer@hq.doe.gov**

2. Which program offices have reviewed? Provide reviewing officer name, program, and level:

None.

3. Which program offices need to review for CAP?

GC-53 - Thomas Reilly, Thomas.reilly@hq.doe.gov

4. Is there anything else about this action ES should know?

None.