

DOE/PHRI Cooperative Agreement
#DE-FC03-98EH98035/A000

DOE/PHRI Special Medical Care Program in the
Republic of the Marshall Islands

Quarterly Program Progress Report
April 1, 2002 – June 30, 2002

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Quarterly Program Progress Report under
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Date: July 31, 2002

Title of the Project: Deliver Special Medical Care to the Marshall Islands as Stated in P.L. 99-239.

Principal Investigator: Neal A. Palafox, M.D., M.P.H.

Co-Principal Investigator: Henry N. Preston, M.D.

Program Coordinator: Lola M. Colombe

Period Covered in this Report: April 1, 2002 – June 30, 2002

I. Introduction

The DOE/PHRI Special Medical Care Program continues to provide, on a year round basis, a broad spectrum of medical care to the DOE patient population. During the fourth quarter of Year 4, the following medical services were provided:

- Annual medical examinations for the DOE patient population (see Exhibit 1 for details).
- Medications for the DOE patient population.
- Preventive and primary medical care to the DOE patient population in the RMI as time and resources permit.
- Additional manpower for the outpatient clinics at Ebeye and Majuro Hospitals (see Exhibit 2 for details).
- Ancillary services such as labs, radiology and pharmacy in coordination with Kwajalein Hospital, Majuro Hospital and the 177 Health Care Program (177 HCP).
- Referrals to Ebeye Hospital, Majuro Hospital and Kwajalein Hospital as necessary.
- Referrals to Straub Clinic & Hospital in Honolulu as necessary (for details see Exhibit 1).
- Monitored and adjusted monthly annual examination schedules based on equipment failure at Kwajalein.

In addition to the above, the program was also involved in the following activities during this quarter:

- Organized and conducted continuing medical education (CME) talks for the program's RMI staff and other RMI healthcare workers.
- Held meetings with RMI government officials and Local Atoll government officials
- Input past medical records into the Electronic Medical Record (EMR) system.
- Made adjustments to and created more templates for the EMR system.
- Coordinated with the Public Health Departments on Majuro and Ebeye.
- Met with PEACESAT to discuss possible collaboration on high speed Internet access.
- Looked for opportunities to expand the program's telehealth capabilities.

- Participated in the DOE-RMI Meeting in Honolulu.
- Finalized the agreement with the RMI Ministry of Health and Environment (MOHE) and Majuro Hospital to hire Dr. Marie Lanwi on a part-time basis.
- Held a Community Advisory Group (CAG) Meeting and Community Meeting on Majuro.
- Negotiated with Kwajalein with regards to the increase in laboratory and procedure costs and continuing Mammography services for the DOE patient population.
- Met with DOE in Honolulu to discuss the next year's program and budget.
- Trained new residents in the use of the electronic medical record system.
- Conducted electronic medical record audits.
- Participated in a training session for the appointment scheduler module by Physician Micro System, Inc. on the EMR system.
- Worked on the Year 5 Continuation Application and Budget.
- Finalized the Memorandum of Understanding (MOU) with 177.
- Worked with DOE and Bechtel Nevada (BN) to reduce PHRI program costs to meet an increase in referral costs paid by Bechtel.

The following report details the additions and changes to the program for the April 1, 2002 – June 30, 2002 period.

II. Health Status of Population

Participation in this medical program is strictly voluntary. Currently there are 119 of the exposed patients and 89 of the additional DOE patients being cared for by the program¹. One patient, #1568, who has not been seen by the program since 1976 and whose whereabouts are unknown, has been taken off of the active patient listing for the time being. Should the patient reappear in the future, the program will resume medical care for this patient. The total number of DOE patient encounters during this period was 372². There were two (2) referrals during this quarter to Straub Clinic & Hospital for further follow-up and evaluation on possible radiation related illnesses (see Exhibit 1 for details).

During this quarter, 70 annual examinations were begun (Level 1), of which 69 were completed (Level 2) (see Exhibit 4 for details). The completion rate has increased compared to prior years due to the efforts of the medical staff. However, since all patients must still travel to Kwajalein to complete their laboratory tests and/or mammograms, there is often a lag time between when patients get their physical examinations and when laboratory tests are done and ancillary services are rendered.³ The availability of services on Kwajalein at any given time during the year also plays an important role in this timing.

Unfortunately, during the earlier part of this quarter, radiology services were still on hold due to Kwajalein's inability to have radiology films read by their contractor in Honolulu. This greatly

¹ The term DOE patient population refers to the combination of both the "exposed" patients and the additional DOE patients, formerly known as the "comparison or control" group.

² Clinic encounters fluctuate based on the presence of the medical officers (vacation, sick leave, professional leave, outer atoll trips) and whether the residents speak Marshallese. In addition, please note that Kwajalein patient encounters include visits for medical procedures/tests that could not be conducted in Majuro, Mejjatto or Utrik.

³ Annual exams are counted as completed once all the results are received and verified by PHRI in Honolulu, either hard copy or entered into the EMR system.

impacted the program's ability to complete annual exams as scheduled. In order to avoid incurring double costs, the program halted all exams for those patients needing to make special travel arrangements to Kwajalein for completion, i.e. patients residing on outer islands and Majuro, until the reading issue was resolved. Only patients residing on Ebeye or those that happened to come in to Kwajalein/Ebeye on their own were seen at Kwajalein for completion of their annual exams. This greatly impacted the program's ability to complete exams as scheduled. Kwajalein Hospital is negotiating a contract with Straub Clinic & Hospital in Honolulu for readings.

III. Program Administration and Physicians

The program continues to have Residents who choose to make repeat rotations to the Marshall Islands. These repeat rotations by the residents help the program provide continuity of care for the DOE patient population (see Exhibit 2 for details).

In order to provide ongoing continuity of care to the DOE patient population and clinic oversight for the program's RMI staff, the program's physicians and staff based in Honolulu have visited the RMI on two different occasions during the April 1, 2002 – June 31, 2002 period. These visits include:

- 1 visit by Dr. Wilfred Alik, Co-Investigator: May 2002.
- 1 visit by Dr. Neal A. Palafox, Principal Investigator: June 2002.

During this quarter, in addition to his regular duties (i.e. overseeing both of the clinics, seeing patients, taking call), Dr. Riklon has been involved in the following activities:

- Met with Secretary Donald Capelle on several occasions to discuss revisions to the MOU between the RMI and PHRI.
- Met with Bill Jackson to discuss how to better coordinate the efforts of the different aspects of the medical program with logistics and the 177 HCP.
- Met with Deborah Atwood of the 177 HCP to discuss the MOU between the 177 HCP and PHRI.
- Met with Oling DeBrum, Director of Ebeye Public Health Department, and her Outreach Program Coordinator with regards to the possibility of enlisting the Residents as active members of the Outreach Program team.
- Met with Florence Nathan, nurse supervisor at the Majuro Public Health Department, with regards to coordinating the active involvement of the Residents with the Outreach Program.

Dr. Riklon is committed to recruiting more Marshallese students into the health field. While he understands the great need for Marshallese health care providers in the RMI in building the local health care infrastructure, he has not had the opportunity to develop his health care opportunities program (HCOP) as he would like. He hopes to work on developing the HCOP this coming fiscal year as he becomes more comfortable with his role as Director of Clinical Operations for the DOE/PHRI program.

Dr. Riklon was recently appointed to the Executive/Planning Committee of the Pacific Region Indigenous Doctors Congress (PRIDoC) by Dr. Victor Yano, President of the Pacific Basin

Medical Association (PBMA). He will be involved in the planning of the next conference, which is schedule for Australia in 2004.

IV. Continuing Medical Education

The following CME presentations have been given this quarter:

<u>DATE</u>	<u>PRESENTER</u>	<u>PLACE</u>	<u>TOPIC</u>
April of '02	Vanessa Wong, MD (Resident)	Ebeye & Majuro Hospital	Smoking Cessation
May of '02	Eugene Kroon, MD (Resident)	Majuro Hospital	HIV Management
June of '02	Hae Jung Marr, MD (Resident)	Majuro Hospital	Dyspepsia

These presentations are given not only to the RMI physicians and staff but also to other interested healthcare workers in the RMI. They were held at Ebeye and Majuro Hospitals and were well received.

The program continues to provide the RMI staff and collaborating physicians at Kwajalein and Ebeye Hospitals, medical updates and resources via e-mail and the web.

During the end of May, Dr. Sheldon Riklon attended a conference in Honolulu (Pacific Region Indigenous Doctors Congress – Caring for the Indigenous People of the Pacific) where he presented a paper on the “Effects of the US Nuclear Testing Program in the RMI”. The conference sponsored Dr. Riklon’s trip to Honolulu and brought together indigenous doctors from New Zealand, Australia, Micronesia, Hawaii, Canada, and Native Americans. It provided the opportunity for Dr. Riklon to educate physicians from other jurisdictions about the RMI and the current status of the health care system. The conference enabled Dr. Riklon to meet other physicians who work in similar health environments and develop an ongoing working relationship with them.

In addition, in June, Vicki Shambaugh and Lola Colombe attended a conference in Honolulu entitled: Global Public Health – Issues and Strategies for Hawaii and the Pacific, attendees from the RMI included, Justina Langidrik (MOHE) and Kennar Briand (MOHE). The goal of the conference was to bring together a diverse array of Pacific public health communities to share effective strategies and help promote a broader discussion of public health issues specific to the region. Contacts were made with the Fiji Medical School, Fiji School of Public Health and the Fiji School of Dentistry. Funding agencies that support work in the Pacific and were present at the meeting included: WHO, CDC, HRSA and UNICEF. PIHOA’s new director presented a session and plans were made to get a group together annually of those funded and conducting

research and health services in the Pacific. Vicki asked that DOE be included for further collaborative efforts. In addition, Vicki talked with the Fiji Dental School and the CDC about possible collaborative work with the Forsyth Institute on preventive dental care and children. UNICEF presented their work with the storyboard for patient/family education. This is the same concept that was used for the PHRI program.

V. Clinics

Both clinics continue to provide annual medical exams for the DOE patient population (see Exhibit 4 for details) and other preventative medical services as time and resources permit. Both of the MO's as well as the Residents, Faculty and Dr. Riklon assist the MOHE at Ebeye and Majuro Hospital during outpatient clinic hours. They also take call in the evenings as assigned.

Majuro Clinic:

In February of 2002, the Medical Officer in Majuro, Dr. Zach Zachraias, left the program for further training in Palau. During this quarter the program finalized an agreement with the RMI MOHE and is currently utilizing Dr. Marie Lanwi on a part-time basis to cover the clinic when Dr. Riklon is away on Kwajalein, attending meetings or on vacation. Dr. Lanwi was the full-time Medical Officer on Majuro prior to Dr. Zachraias.

Kwajalein Clinic:

While the program hopes to eventually move the Kwajalein clinic to Ebeye, we do not anticipate a move in the coming months despite the fact that the new Ebeye hospital has been operational since April. The majority of the equipment (i.e. x-ray machines) in the new facility is not yet functional and they are awaiting technical assistance from the equipment vendors. Furthermore, Ebeye is currently unable to support the program's needs with regards to Internet capabilities; hence the program would not be able to access its EMR system. This alone would make an immediate move to Ebeye problematic for the program. Dr. Jack is, however, seeing both DOE and Non-DOE patients in offices at the new hospital that have been designated for the DOE program.

During the early part of this quarter, radiology services on Kwajalein were halted due to the hospital's inability to have radiology films read by their contractor in Honolulu. The program had temporarily halted the movement of patients, other than those residing on Ebeye, to Kwajalein to complete their annual exams. Straub Clinic & Hospital is currently negotiating a contract with Kwajalein to read all of their films, with the exception of ultrasounds.

Kwajalein Hospital planned on discontinuing mammography services as of July 31, 2002, but has since concluded an agreement with DOE to continue those services. In the short term, the program has agreed to pay a flat rate of \$50,000⁴ for mammography services (procedure and reading) only at Kwajalein Hospital. The program's long term strategy, however, is to work with the RMI MOHE on Majuro to develop the capacity to conduct mammograms at Majuro Hospital. The RMI MOHE has already begun getting the mammogram machine on Majuro in working order. A couple of mammograms have been completed and have been

⁴ This rate will include the newly instituted reading charges (effective 10/0/02) for mammograms.

sent off-island to be read (results pending). An inspection team from the manufacturer of the machine is due to fly in upon approval from Marshall Islands Social Security Administration (MISSA) to get the machine certified. Two radiology technicians have been trained and certified for the mammogram machine. And, the MOHE has been negotiating with a Radiologist on Guam to read the mammograms.

VI. Other Health Related Services

A. Public Health Sector:

In Majuro and Ebeye, as part of their ongoing public health project in the RMI, the Residents continue to conduct regular outreach visits, two to three times a week, through coordination with the Public Health nurses. During these visits the Residents assist the nurses in providing patient education to patients with diabetes, hypertension, Hanson's disease, tuberculosis, malnutrition, and STD's (sexually transmitted diseases), making dressing or medication changes and dispensing prescriptions to homebound. On occasion, they also assisted in the immunization program, i.e. conducting TB screening tests.

On Ebeye, the residents are also actively involved with the TB program. Since Dr. Jack is the head of the Tuberculosis Program on Ebeye, the residents assist in caring for the admitted TB patients while in the hospital receiving their Direct Observed Therapy (DOT).

VII. Thyroid Examinations

Dr. Kryston attended the American Association of Clinical Endocrinologists (AACE) Thyroid Ultrasound Certification Course in May. He is now accredited and is able to give readings of the thyroid ultrasounds the program is currently conducting on the portable machines. The program is looking into ways to have Dr. Riklon and possibly Dr. Tom Jack certified also. While the program has increased the number of trips that Dr. Kryston will take next year, from two to four, it is exploring the possibility of having Drs. Riklon and Jack take the images from the RMI and send them to Dr. Kryston via the web for reading.

VIII. Medical Records

In June, Dr. Riklon, the computer systems analyst, the program coordinator and the program assistant received training from Physician Microsystems in the use of the appointment scheduler program. The scheduler will enable us to keep better track of patient volumes, enable us to schedule follow-ups with reminders, reduce the flow of paper between the RMI and Honolulu (the program can now look electronically at the schedule daily rather than wait for calendars to be sent via mail). It will also eliminate redundancy, provide real time access to health care information and allow for quality assurance and quality control of medical record data.

During this quarter the computer systems analyst, the program coordinator and the program assistant completed entering into the EMR system, all pertinent information from the program's past records (from Jan. 1999 to current).

In addition, the physicians now have the ability to view a digital image of a patient's thyroid. Those images that have been taken on the portable thyroid ultrasound machine have been entered into the patient's electronic record.

During this quarter the program coordinator and computer analyst trained two (2) residents in the use of the medical record system prior to departure for the Marshall Islands. On return from the Marshall Islands the residents have provided valuable information regarding the status of the operation of the EMR system.

The computer analyst has continued to monitor and make adjustments to the EMR. Updates to the system are periodically received from the vendor, Physician Microsystems. Updates to the remote access software and operating system software are also periodically installed, on an as needed basis.

A. Majuro

The speed of access for Majuro is still an outstanding issue for the clinic due to the required use of dial up equipment on Majuro. Chris Welch, the computer analyst, is working closely with PEACESAT and Dr. Riklon, to see how the program could piggyback on their current services at Majuro Hospital and the College of the Marshall Islands (CMI).

B. Kwajalein

The Kwajalein clinic currently has real time access to the EMR with minimal latency. Should the clinic move to Ebeye, we have been informed by those familiar with the computer networking capabilities of the new Ebeye Hospital, that the EMR system could not be supported. Detailed research and analysis is required before moving the record system off of Kwajalein to Ebeye, in order to assure a successful transition from one setting to the other. One such possible avenue is to work in collaboration with PEACESAT. PEACESAT has recently submitted a grant proposal to get Ebeye Hospital real time access via satellite links.

IX. Telehealth

During this quarter, Dr. Palafox, the program coordinator and the computer systems analyst met with PEACESAT to pursue broadband connectivity for Majuro and Ebeye. The EMR system on Majuro, while up and running is often slow and erratic. In order to use the system on a consistent basis, the clinic needs to have reliable and consistent Internet service. To date, NTA has not been able to provide this on a regular basis. On Majuro, PEACESAT currently provides Internet service to the CMI via its satellite connection.

PEACESAT is currently exploring an expansion of its capabilities on Majuro and the computer analyst is in contact with personnel from PEACESAT in order to see how the DOE program could collaborate with them to increase access for the Majuro Clinic. Two possible scenarios for gaining Internet access via PEACESAT telecommunication resources have been discussed and will require some negotiation, as the feasibility of sharing access with PEACESAT is dependent on a number of factors. A resolution to various technical, institutional and financial issues, and a

subsequent decision on the best means for possible connection sharing, is expected by mid-summer.

The computer systems analyst continues to monitor and make revisions to both the public and secure website, which can be found at www.phri-doe.org. The program's connections through the telehealth associations and the National Library of Medicine allow the program to receive and send important up-to-date health information to the RMI staff as well as to other medical centers and interested parties in the RMI. This provides an on-going source of continuing medical education for the RMI health professionals.

The program's contacts for vision screening and dental care are still working with PHRI to explore funding opportunities to permit these services in the RMI. With funding cutbacks this quarter, we were unable to support trips to the RMI for our contacts and staff to do a needs assessment, site inspection and meet with the RMI MOHE regarding planning for possible programs to ensure long term stability and value of any programs developed.

X. Community Meetings

During the month of June, Dr. Neal Palafox and Dr. Sheldon Riklon held meetings with the Community Advisory Groups and the DOE patient community on Majuro. In general, the meeting was well attended and there were no major complaints. There were three issues, however, that were discussed, which the program will work to resolve:

- Need to have more timely distribution of past medical records once appropriate releases forms have been submitted by the patient or the patient's family members.
- Per diems are not being received in a timely manner.
- The box lunches on Kwajalein need to include healthier options.

With regards to the latter two, the program will work with Bechtel Nevada to make sure patients receive their per diem on time and are given healthier box lunches. As for the medical record issue, the program is looking at ways to get copies to the patients in a more efficient manner.

XI. Quality Assurance

As more records are entered in the new EMR system, audits are conducted in Honolulu by the computer systems analyst, the program coordinator and the program assistant. The records are checked for accuracy and completeness.

The program continues to administer patient satisfaction forms. Results from this year's survey are shown in Exhibit 4. In comparison with last year, access to the clinic has shown a marked improvement (83% vs 57% rated as Good)⁵. Other improvements were in the following categories:

- Nurses providing information to the patient (98% vs 89%)
- Friendliness of the MO (90% vs 76%)
- MO providing information to the patient (85% vs 76%)
- Trust in the MO (94% vs 75%)

⁵ The percentages noted are a comparison of the Good ratings between the Year 4 and Year 3 survey.

- Competence shown by the Honolulu physicians (85% vs 80%)
- Trust in the Honolulu physicians (85% vs 76%)

There were, however, some areas that the program will need to work on and determine why patients feel the level of service was less when compared to last year's survey. The following were the areas where a decrease was noted:

- Competence shown by the nurses (86% vs 95%)
- Friendliness of the Honolulu physicians (79% vs 89%)
- Medical care received (73% vs 80%)

The following categories remained relatively unchanged when compared with last year:

- Friendliness of nurse (90%)
- Competence of MO (90%)
- Information provided by the Honolulu physicians (83%)
- Overall clinic experience (75%)

The program will continue to make sure the forms are completed and tabulated on a yearly basis.

XII. Access

For those patients who reside on the U.S. Mainland or in Hawaii, the program continues to provide annual examinations for them at either the Physician's Center in Mililani or at Straub Clinic & Hospital. During the months of May and June, the program saw all of the mainland patients, with the exception of one who is scheduled for July, for their annual examinations. The program also works closely with Bechtel Nevada to make sure patients, who reside in Hawaii and on the mainland, who are eligible for insurance, complete the necessary paperwork in the State where they reside.

Exhibit 1

Patient Statistics for April 1, 2002 – June 30, 2002 (1)

Location	DOE Patient Encounters (4)	Non-DOE Patient Encounters (5)	Deaths	Referrals to Hawaii	Annual Examinations (6)
Ebeye	17	284	0	0	11 (18)
Kwajalein	141	-	-	-	-
Majuro	166	162	0	0	25 (22)
Mejatto	0	0	0	0	14 (10)
Utrik	0	0	0	0	8 (7)
Hawaii (2)	19	-	0	0	1 (1)
CONUS (3)	29	-	0	2	11 (11)
Total	372	446	0	2	70 (69)

(1) Statistics from April 1, 2002 – June 30, 2002.

(2) Honolulu numbers include 18 prescription refills.

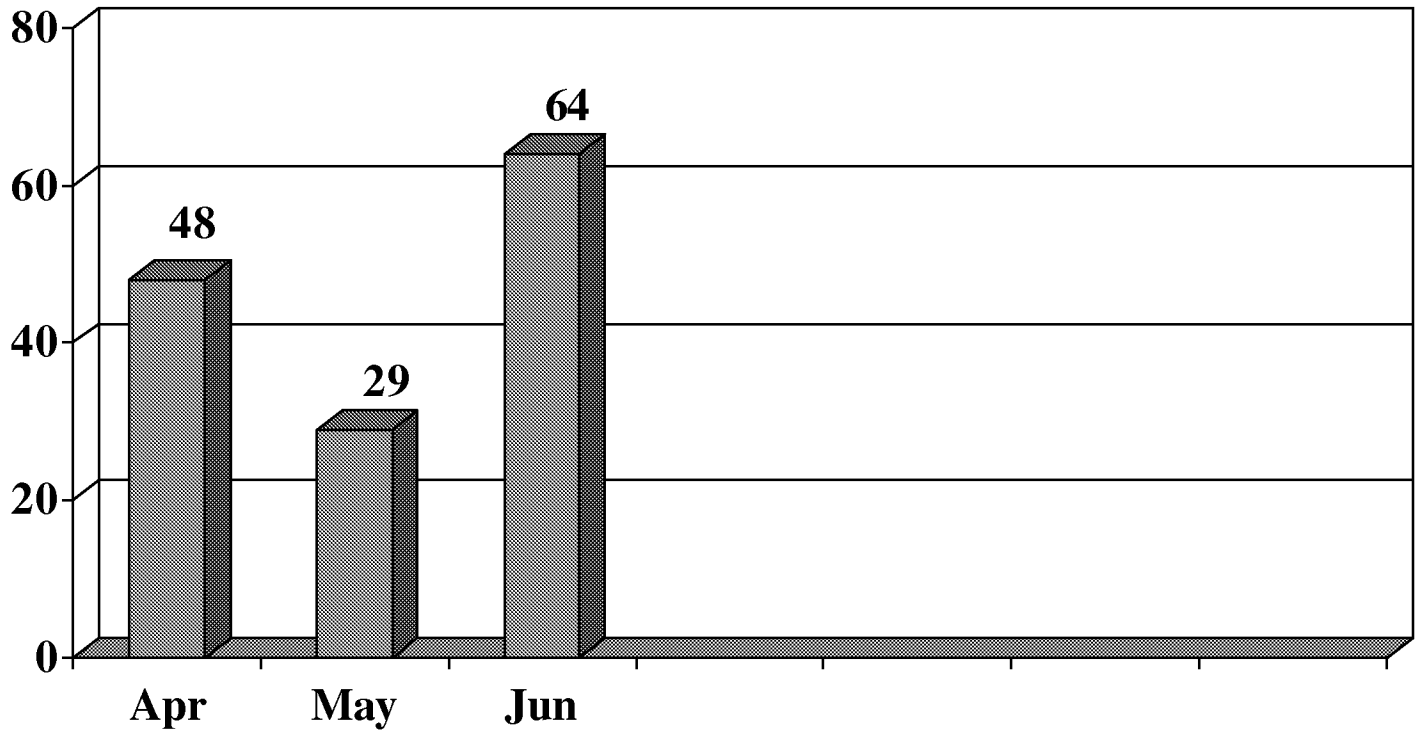
(3) CONUS numbers include 18 prescription refills sent to mainland patients and annual exam visits conducted in Hawaii.

(4) Encounters include visits for annual exams , home visits, follow-ups, labs, procedures and prescription refills.

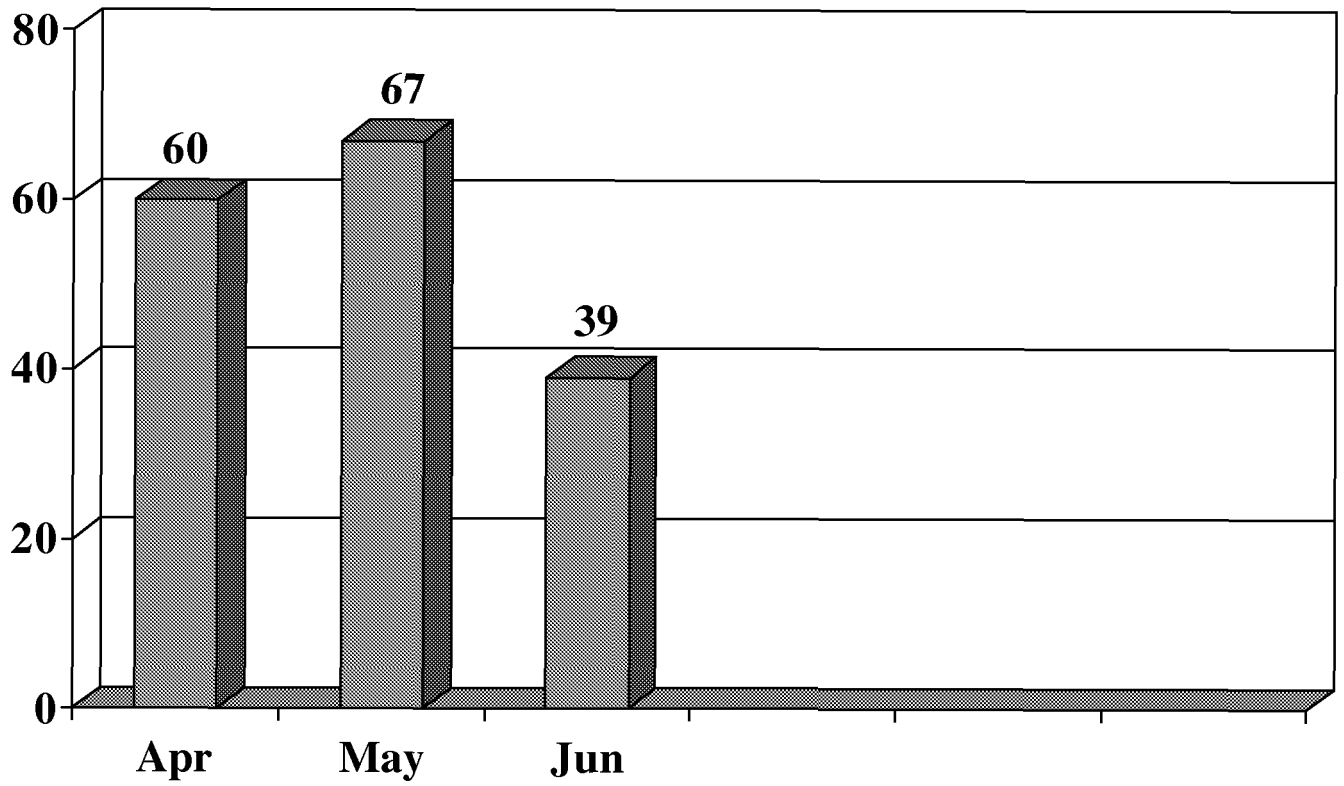
(5) Total # of non-DOE patients seen at outpatient clinics at Ebeye and Majuro Hospital by the Medical Officers, Residents and Faculty. Figures for Majuro include actual numbers for Resident and Faculty.

(6) Indicates the location where the patient resides, not where exams were done. The first number represents the number of annual exams begun during the period and the number in () indicates annual examinations completed during this period.

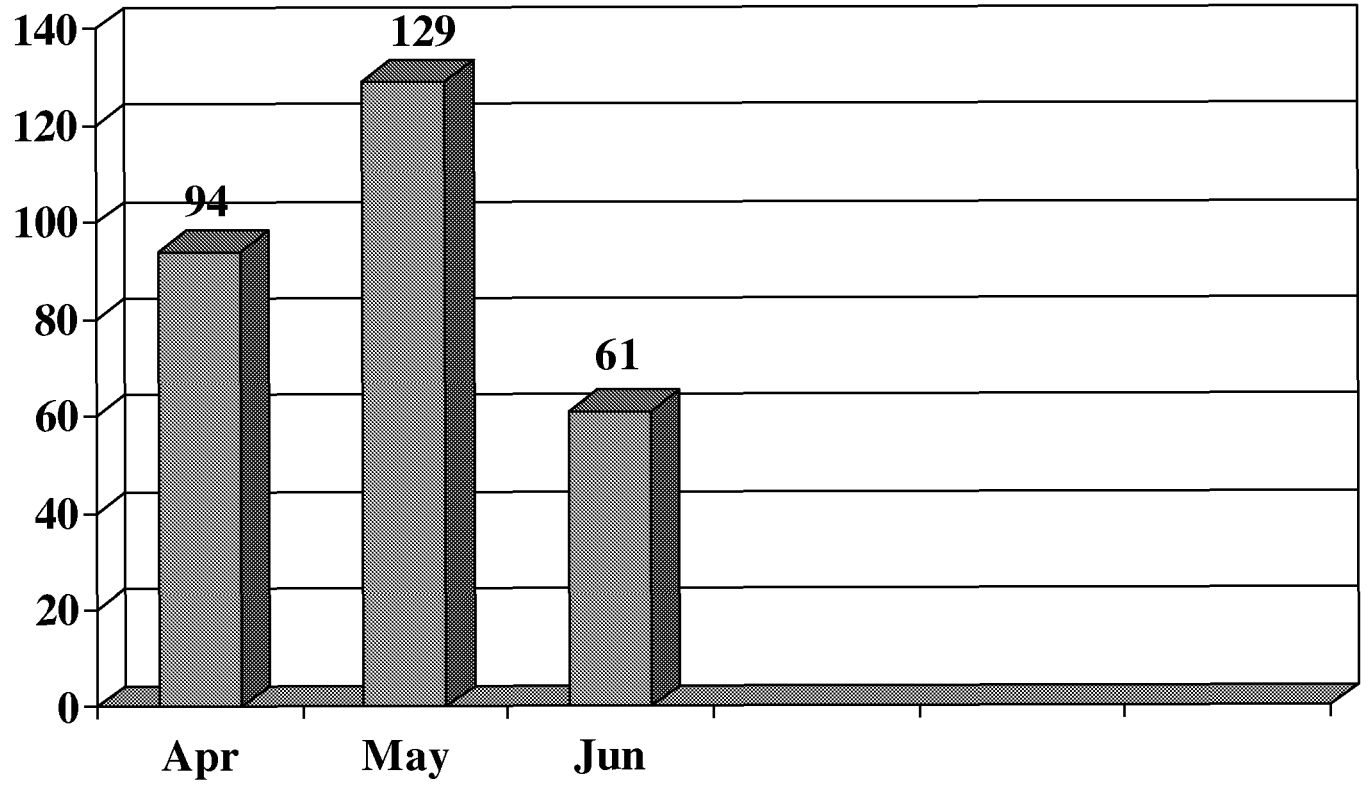
DOE Patient Encounters – Kwajalein Clinic



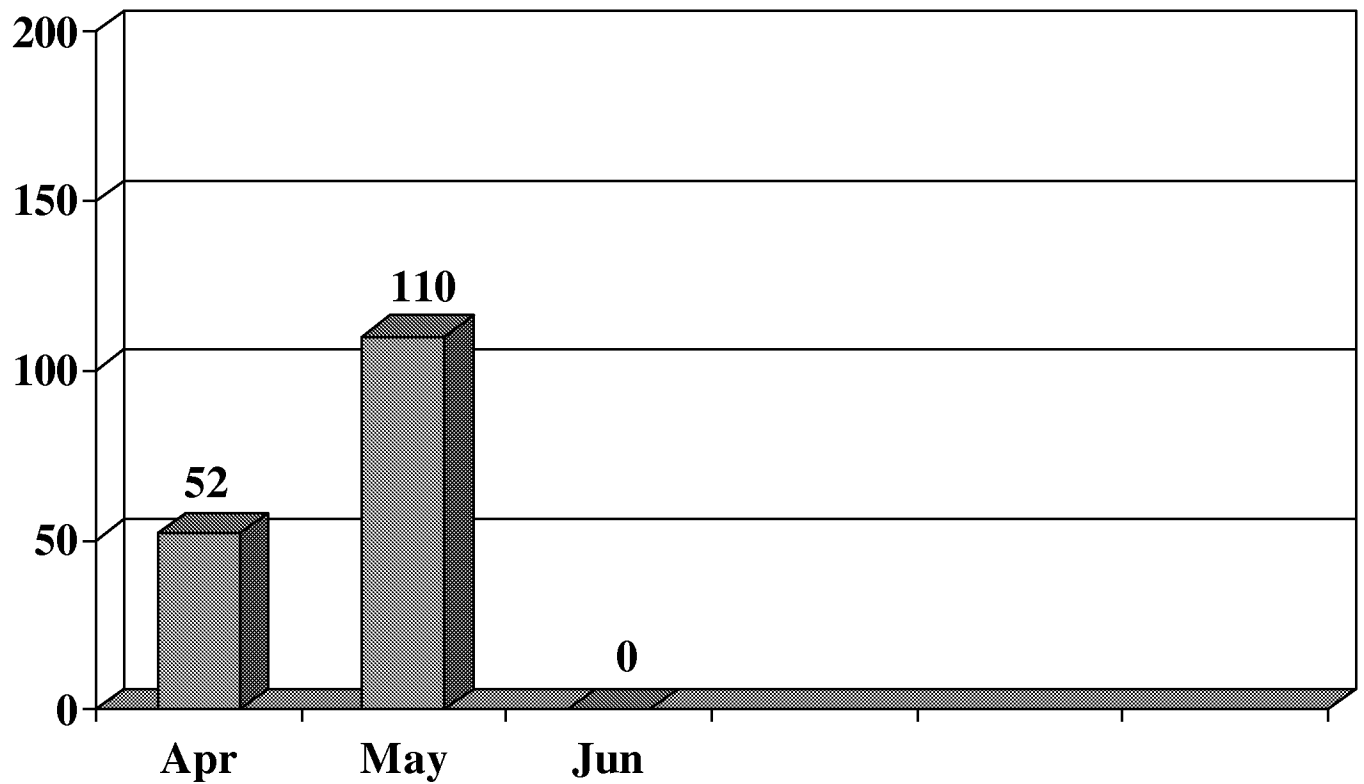
DOE Patient Encounters – Majuro Clinic



Non-DOE Patients Seen at Outpatient Clinic: Ebeye Hospital



Non-DOE Patients Seen at Outpatient Clinic: Majuro Hospital⁶



⁶ Outpatient counts for June were 0 both for the Resident and for Dr. Riklon. There was no Resident rotation for the May 27 – June 21 period. The Resident for the June 26 – July 19 time period was unable to see patients at Majuro Hospital due to a newly instituted ruling with regards to credentialing, which has since been resolved. During the month of June, Dr. Riklon was travelling quite extensively and was unable to see patients outside of the DOE clinic.

Detail on Patient Referrals

1. Patient #2234 was referred to Straub Clinic & Hospital in Honolulu for follow-up on an abnormal thyroid ultrasound.
2. Patient #19 was referred to Straub Clinic & Hospital in Honolulu for follow-up on an elevated PSA.

Exhibit 2

Ejmour Mokta – DOE/PHRI Special Medical Care Program in the Republic of the Marshall Islands

Rotation Schedule

I. Faculty⁷

May 3 – May 17 Wilfred Alik, MD

II. Residents

Mar. 29 – Apr. 26 Vanessa Wong, MD
Apr. 26 – May 24 Eugene Kroon, MD

III. Other

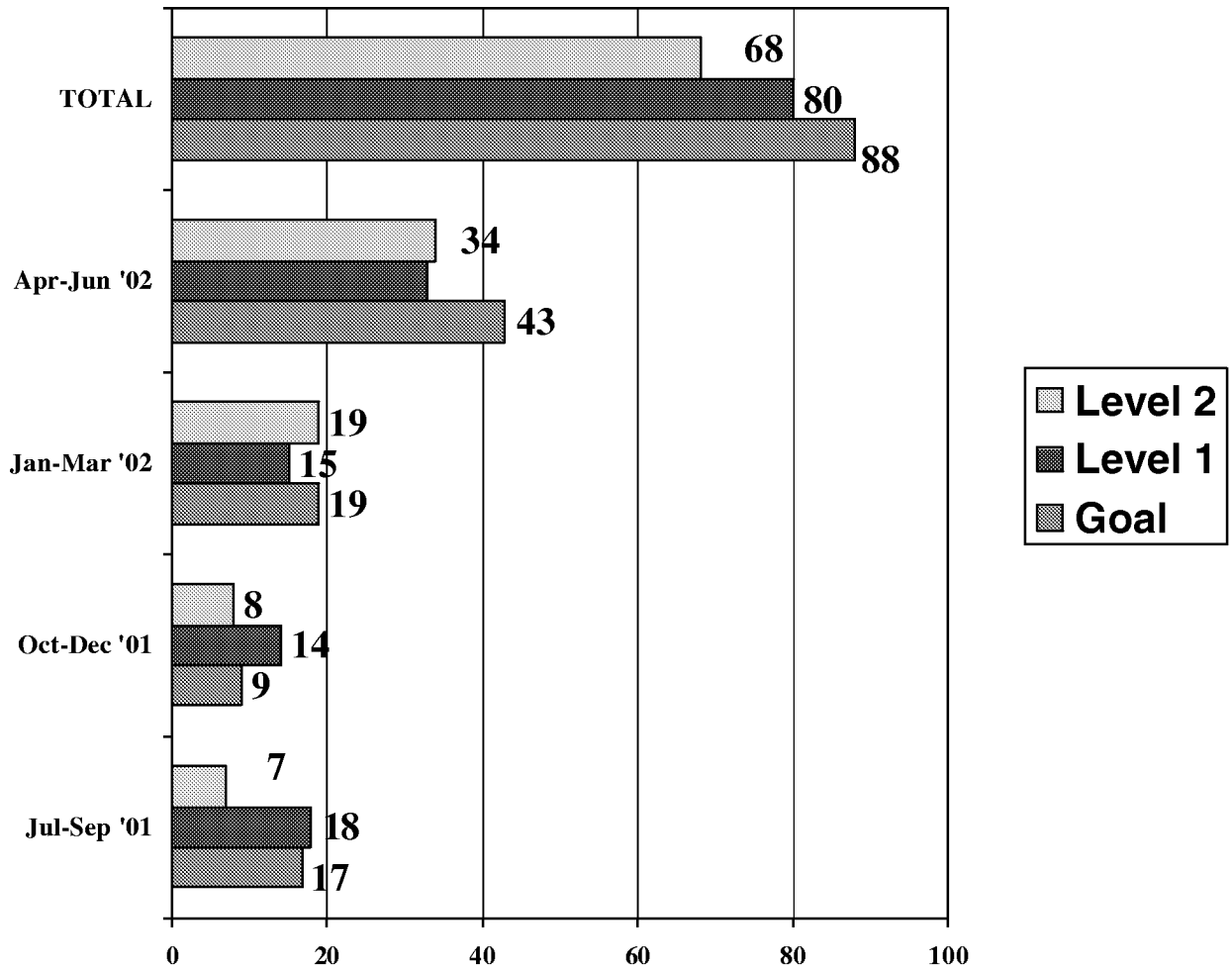
Jun. 26 – Jul. 12 Neal A. Palafox, MD, MPH

⁷ Beginning 1 August 2001, Dr. Sheldon Riklon was hired as Director, Clinical Operations in the RMI. Faculty rotations other than Dr. Wilfred Alik will be on an as needed basis.

Exhibit 3

Performance Measures

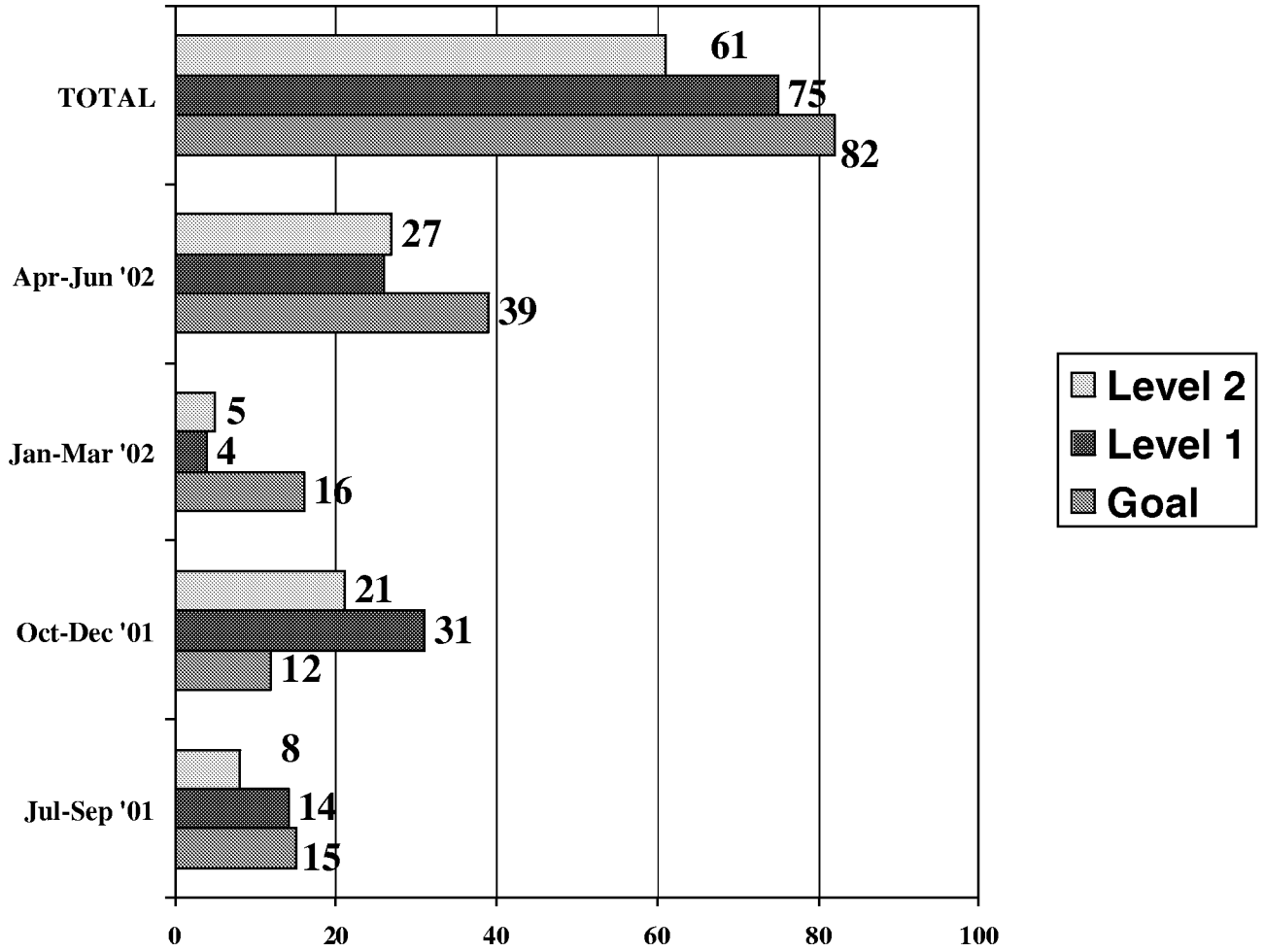
Annual Examinations - Majuro Clinic⁸



⁸ Note: Level 1 represents the number of annual exams that have been started but not completed. Level 2 represents the number of annual exams that have been completed.

Performance Measures

Annual Examinations - Kwajalein Clinic⁹



⁹ Note: Level 1 represents the number of annual exams that have been started but not completed. Level 2 represents the number of annual exams that have been completed.

Exhibit 4

Patient Satisfaction Survey

