

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
January 1, 2002 – March 31, 2002**

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**Quarterly Program Progress Report under
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Date: April 24, 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: January 1, 2002 – March 31, 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 this third 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.
- Referrals to Straub Clinic & Hospital in Honolulu, Hawaii (see Exhibit 1 for details).
- Additional manpower for the outpatient clinics at Ebeye and Majuro Hospitals (see Exhibit 2 for details).
- Preventive and primary medical care to the DOE patient population in the RMI as time and resources permit.
- Ancillary services such as labs, radiology and pharmacy in coordination with Kwajalein Hospital, Majuro Hospital and the 177 Health Care Program (177 HCP).
- One (1) trip to Mejjatto and Utrik (see Exhibit 3 for details) to see the DOE patient population.
- Referrals to Ebeye Hospital, Majuro Hospital and Kwajalein Hospital as necessary.

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, other RMI healthcare workers and the general population.
- Held community meetings on Ebeye, Majuro, Mejjatto and Utrik.
- Continued to input past medical records into the EMR system.
- Continued to make adjustments to the EMR system.
- Continued to coordinate with the Public Health Departments on Majuro and Ebeye.
- Continued the development of the program's secure web-site.
- Continued to look for opportunities to expand the program's telehealth capabilities.

- Held meetings with RMI government officials and Local Atoll government officials.
- Continued to train new residents in the use of the electronic medical record system.
- Continued to conduct medical record audits.

The following report details the additions and changes to the program for the January 1, 2002 – March 31, 2002 period.

II. Health Status of Population

Participation in this medical program is strictly voluntary. Currently there are 119 of the exposed patients and 90 of the additional DOE patients being cared for by the program¹. The total number of DOE patient encounters during this period was 314². There were 4 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, 31 annual examinations were begun (Level 1), of which 19 were completed (Level 2) (see Exhibit 4 for details). The completion rate has increased compared to prior years due to the efforts of 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 tests done and when results are received by the clinics.³ Also, during this quarter, radiology services were temporarily halted due to Kwajalein's inability to have radiology films read by their contractor in Honolulu, which greatly impacted the programs ability to complete annual exams as scheduled. In order to avoid incurring double costs, the program has 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. Only patients residing on Ebeye or those that happen to come in to Kwajalein/Ebeye on their own have been seen at Kwajalein for partial completion of their annual exams.

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 January 1, 2002 – March 31, 2002 period. These visits include:

- 1 visit by Dr. Neal A. Palafox, Principal Investigator: January 2002.
- 1 visit by Dr. Wilfred Alik, Co-Investigator: March 2001.

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.

Due to the recent budget cuts, in January, Dr. Neal Palafox, along with Bill Jackson, made a trip to the RMI to conduct community meetings on Ebeye, Majuro, Mejatto and Utrik to discuss possible cuts to the program and solicit opinions from the DOE patient population. They also met with USAKA personnel to discuss the rate increases they proposed for services rendered at Kwajalein Hospital effective October 1, 2002 and the recent decision by Kwajalein to discontinue mammography services as of July 31, 2002. Both will have a significant impact to the program and its ability to deliver quality health care services to the DOE patient population.

A number of options were discussed such as negotiate with Kwajalein for a flat fee to cover mammography services, have the machine donated to Ebeye and develop their capacity, and purchase the mammography machine and run it with hired staff. In the long run, the program hopes that it can continue to build the RMI local health services, especially with regards to the mammography and ultrasound infrastructure. The long-term solution would be to work with the RMI MOHE and 177 HCP to develop the Majuro capacity. We feel that we should try to integrate and coordinate with MOHE as much as possible, which may lead to the phasing out of Kwajalein as we continue to build capacity on Majuro. Moreover, this deliberate change to concentrate care on Majuro will enable our patient population to begin to have trust in their own health care system and perhaps gradually break away from the "old" mindset of special care on Kwajalein. We have offered our assistance and need to give the MOHE time. We will continue to work with Majuro and the MOHE to develop this capacity.

Dr. Palafox, Bill Jackson and Dr. Sheldon Riklon also met with Irene Paul, Tommy Milne, Dr. Sandra Yao and Oling DeBrum of the Kwajalein Atoll Health Care Bureau with regards to the opening of the new Ebeye Hospital. Discussions focused on the space arrangements that will be made for the DOE clinic and what would be appropriate rent. Various options in lieu of rent were also discussed such as an agreement to cooperate together and share resources when and if possible. The space under consideration would consist of one outpatient exam room, an office and a shared pharmacy. This would allow the program to see DOE patients on Ebeye exclusively in the morning and thereafter any patients that needed to be seen.

Unfortunately, due to a change in date, Dr. Palafox and Bill Jackson could not attend the dedication ceremony, which took place on February 23. However, Tom Jack, MO and Capelle DeBrum represented PHRI and DOE respectively at the ceremony. The new hospital is scheduled to be operational by April 15th.

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:

- He met with Deborah Atwood and Russell Edwards of the 177 Health Care Program with regards to a proposal by the 177 HCP to construct a new building that will house both the 177 HCP and the DOE/PHRI program. In this way, the two programs could work alongside each other, while preserving the separate identities of the two programs. Further discussions on this collaboration are to be scheduled at a later date.
- He met with the Utrik, Mejatto, Ebeye and Majuro Communities, as well with the various CAGs, along with Dr. Neal Palafox and Bill Jackson to discuss the program's budget cuts, increased cost of services on Kwajalein, and the high cost of referrals.

Dr. Riklon was also appointed as a member of the Medical Referral Committee of Majuro Hospital, as replacement for Dr. Robert Maddison, who left for further training in Palau. As a member of this committee, Dr. Riklon will further the cooperation and communication between this committee and the DOE/PHRI program. He will also be able to ensure a smoother transition for those patients who are participants in both programs and who are referred to Honolulu for treatment.

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>
Jan. of '02	Miki Purnell, MD (Resident)	Ebeye & Majuro Hospital	Alcohol Related Problems
Feb. of '02	Christina Kealoha, MD (Resident)	Majuro Hospital	Management of Acute GI Bleed

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.

Dr. Riklon also gave a talk to the students of Assumption High School during Career Day in February. His talk, entitled "Life of a Doctor in the RMI", was given to approximately 160 students.

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.

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 during the evenings as assigned.

Majuro Clinic:

During this quarter, Dr. Zach Zachraias left the program in order to receive further training in Palau. The program is currently looking at possible replacements for Dr. Zachraias since the clinic will need to be covered when Dr. Riklon is away on Kwajalein (once a week every other month), attending other meetings or on vacation. Once a candidate is found, negotiations with the RMI MOHE and an amendment to the existing MOU will need to be made.

Kwajalein Clinic:

The dedication of the new Ebeye Hospital was held on February 23rd and attended by Dr. Tom Jack and Capelle DeBrum (Bechtel Nevada). The hospital is scheduled to be operational by April 15th. The program does not anticipate moving all of its services to Ebeye immediately. 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.

During this quarter, radiology services on Kwajalein were halted due to Kwajalein's inability to have radiology films read by their contractor in Honolulu. The program has 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 thyroid ultrasounds.

The clinic was quite busy this quarter conducting outreach services to DOE patients residing on Ebeye. They visited various patients' homes to give out a total of 38 influenza vaccinations.

VI. Other Health Related Services

A. Public Health Sector:

In Majuro, as part of their ongoing public health project in the RMI, the residents conducted regular outreach visits, through coordination with the Public Health nurses. During these visits the residents make home visits to patients with diabetes, hypertension, Hanson's disease, tuberculosis, malnutrition, and STD's (sexually transmitted diseases). On occasion, they also assisted in the immunization program.

On Ebeye, the public health project by the residents is currently undergoing some changes. With the assistance of Dr. Tom Jack, the residents will either be involved in activities similar to those on Majuro or will concentrate on the TB program.

VII. Thyroid Examinations

Currently, thyroid ultrasounds are conducted on a yearly basis on the DOE patient population. The clinics continue to use the handheld thyroid ultrasound machines and note abnormalities or nodules on specially designed progress notes. Dr. Kryston made a visit in January to conduct quality assurance with regards to thyroid palpations and see patients as needed. Dr. Kryston is scheduled to attend a thyroid ultrasound certification course in May. Upon completion of this course he will be accredited and able to give official readings of the thyroid ultrasounds the program is currently conducting on the portable machines.

VIII. Medical Records

During this quarter the computer systems analyst, the program coordinator and the program assistant have entered into the EMR system, all of the program's records (from Jan. 1999 to

current) for those patients whose annual exams were due to be completed as of 3/31/02. A cumulative total of 120 records have thus far been entered into the EMR. They will continue to divide up the patient records until all records have been entered.

In addition, the physicians now have the ability to see a picture of the patient when their electronic medical record is opened. The digital images that were used to create photo ID cards for the patients were inputted by the computer systems analyst into their respective electronic medical record. To date 63 pictures have been inputted and we plan to get all of the patients' pictures inputted.

During this quarter the program coordinator and computer analyst trained four (4) 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 is continuing to research methods of speedier access. One such opportunity is for the program to link into Peacesat. Dr. Palafox met with Norman Okumura, Director (PEACESAT) and Christine Higa, Assistant Director (PEACESAT), and Lynette Araki, Program Analyst (HRSA – Health Resources and Services Administration) among others in March to discuss how we could piggyback on their current services. Peacesat recently received a large grant to link Peacesat at the College of the Marshall Islands with Majuro Hospital. Also discussed was the possibility of linking in Ebeye Hospital. Dr. Palafox was asked to assist Peacesat in working with the RMI government.

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 and to Ebeye, in order to assure a successful transition from one setting to the other.

IX. Telehealth

In order to facilitate telehealth capabilities, the computer analyst continues to pursue broadband connectivity for Majuro. 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 regularly. This will be a major issue for the program should the clinic move from Kwajalein to Ebeye.

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 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 and site inspection.

X. 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 and during this quarter 7 forms have been completed. The program will continue to make sure the forms are completed.

XI. 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. The program works closely with Bechtel Nevada to make sure patients, who reside in Hawaii, who are eligible for insurance, complete the necessary paperwork with the State.

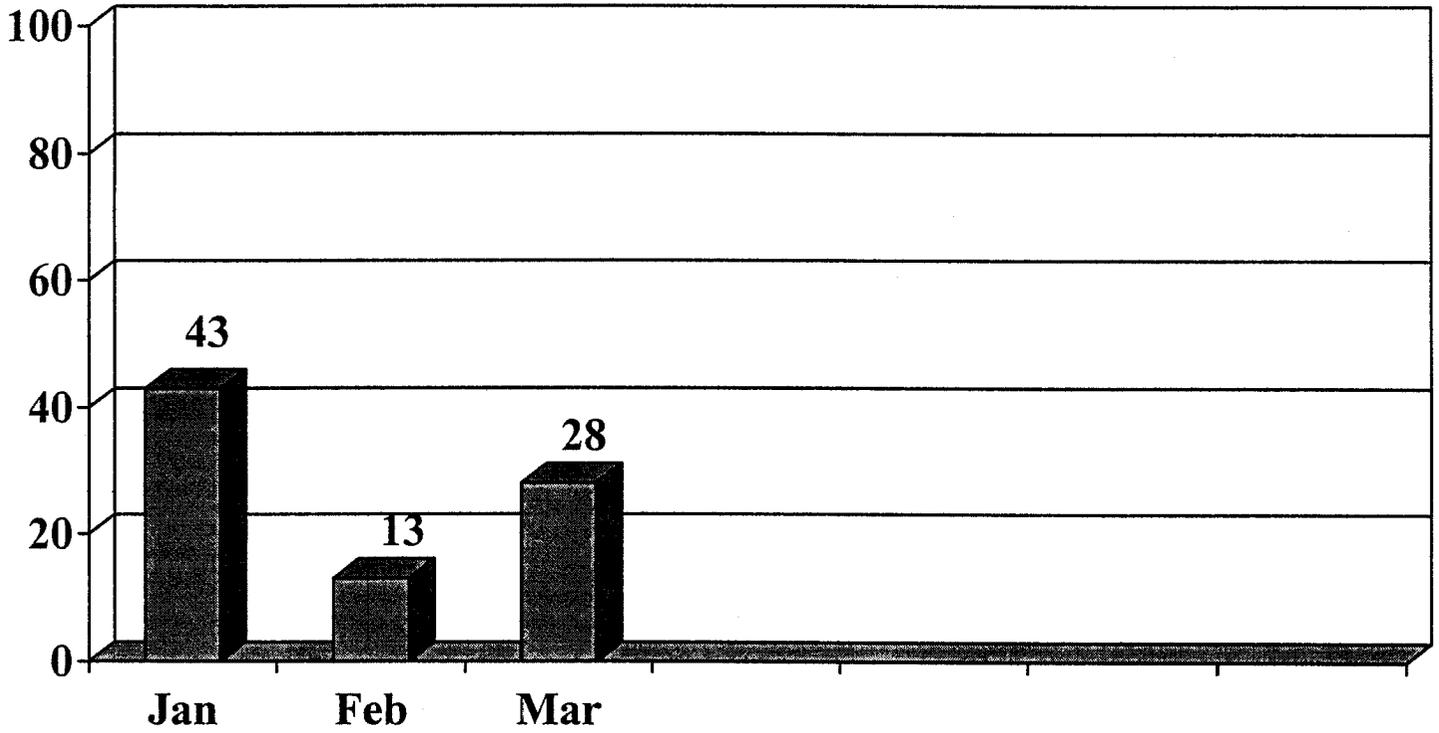
Exhibit 1

Patient Statistics for January 1, 2002 – March 31, 2002 (1)

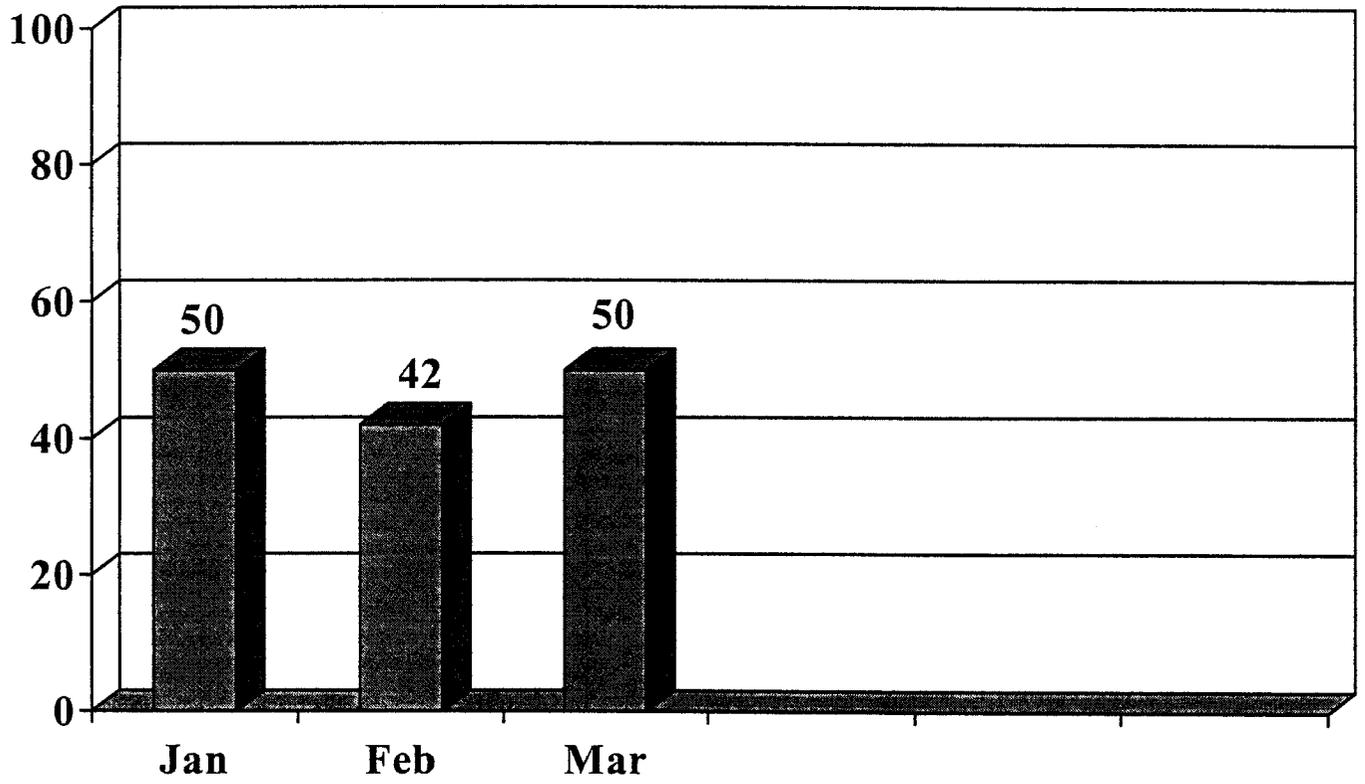
Location	DOE Patient Encounters (4)	Non-DOE Patient Encounters (5)	Deaths	Referrals to Hawaii	Annual Examinations (6)
Ebeye	49	261	0	0	-
Kwajalein	84	-	-	-	6 (6)
Majuro	142	396	0	0	15 (5)
Mejatto	11	5	0	0	1 (0)
Utrik	12	5	0	1	3 (2)
Honolulu (2)	13	-	0	3	6 (6)
CONUS (3)	3	-	0	0	0 (0)
Total	314	667	0	4	31 (19)

- (1) Statistics from January 1, 2002 – March 31, 2002.
- (2) Honolulu numbers include 7 prescription refills.
- (3) CONUS numbers include 3 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. 38 patients received influenza vaccinations via home visits on Ebeye.
- (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. The figures for the Medical Officer on Majuro are based on 10 patients per day (3 days per week).
- (6) Indicates location where physical examination took place, except for CONUS where all exams were done in Hawaii at the Physician's Center in Mililani. The number in () indicates annual examinations completed during this period.

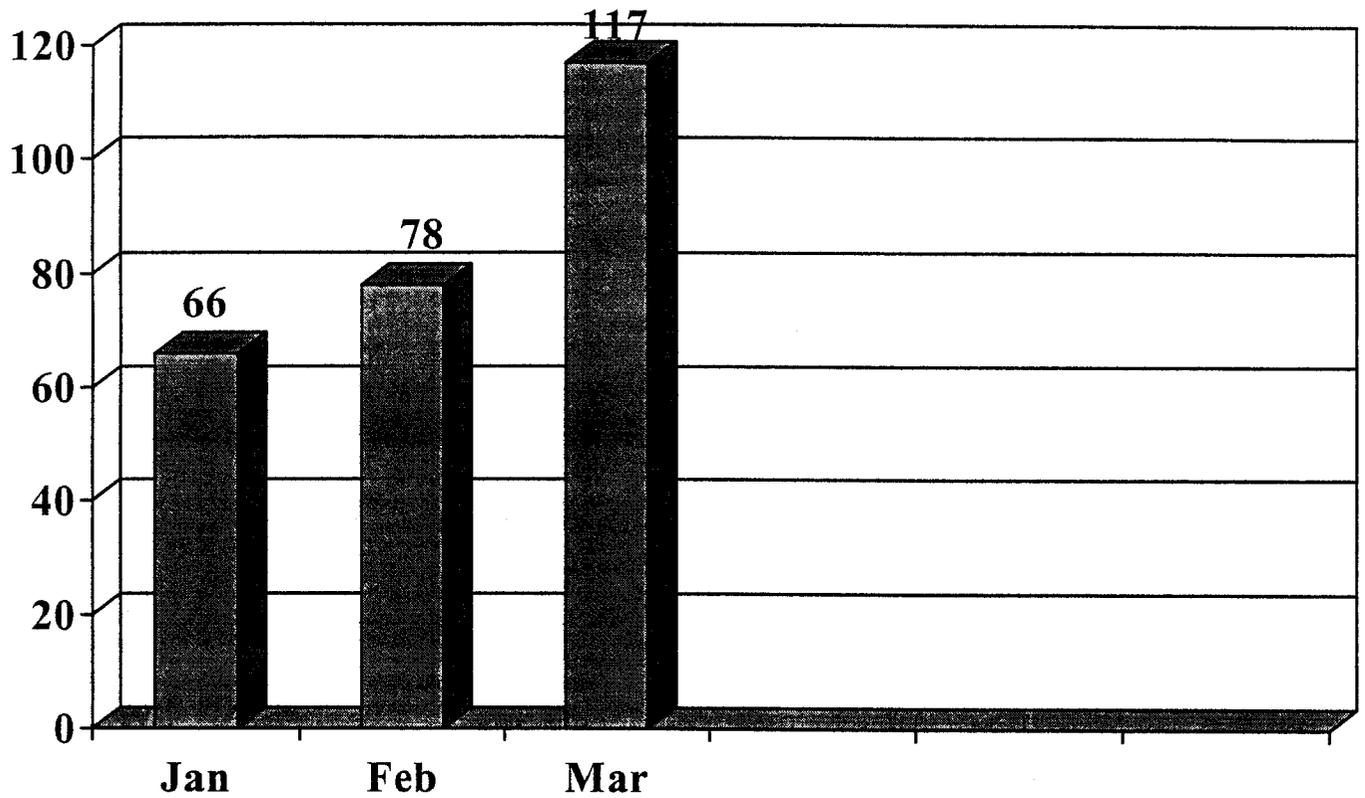
DOE Patient Encounters – Kwajalein Clinic



DOE Patient Encounters – Majuro Clinic

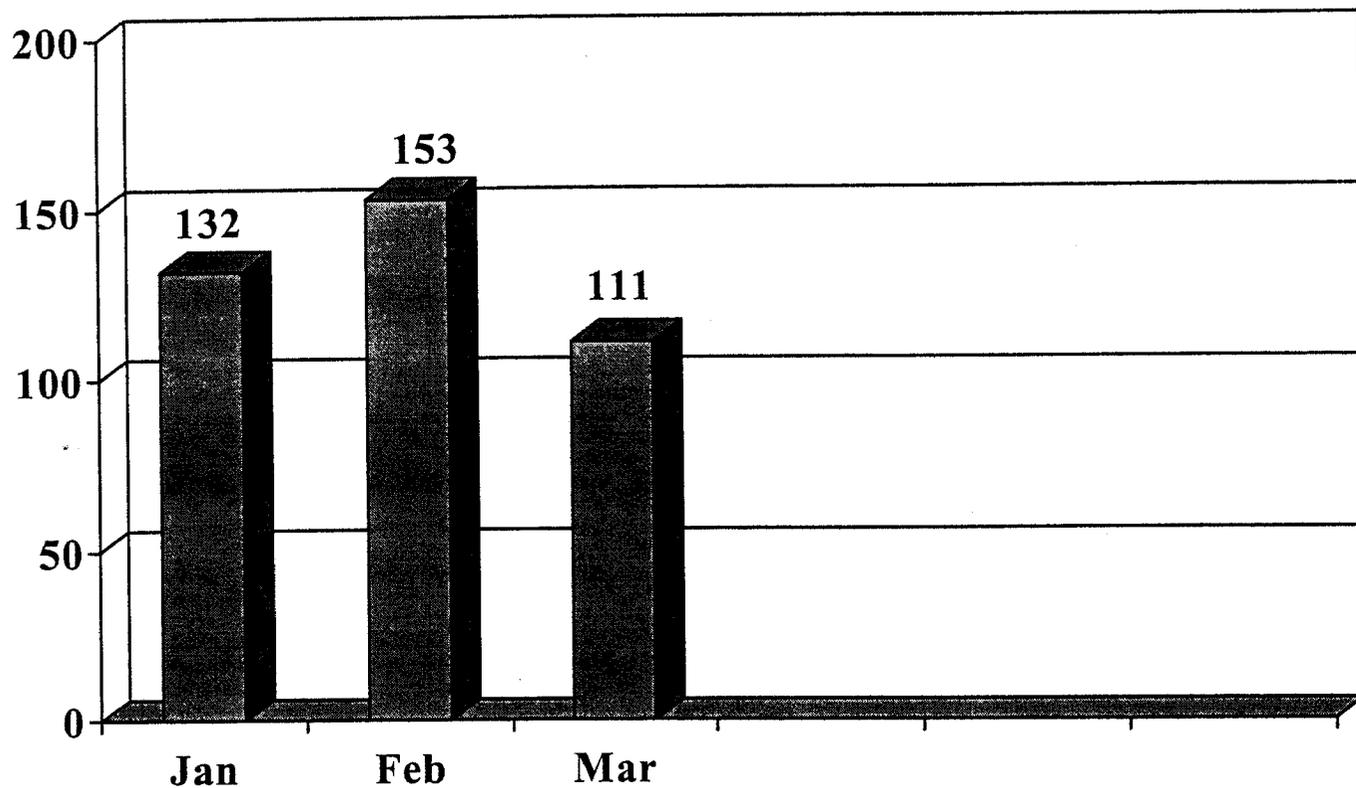


Non-DOE Patients Seen at Outpatient Clinic: Ebeye Hospital⁴



⁴ January figures include 26 patients seen by the Resident, February includes 26 patients seen by the Resident and March includes 27 patients seen by the Resident and Dr. Alik.

Non-DOE Patients Seen at Outpatient Clinic: Majuro Hospital⁵



⁵ January – February 22 figures for Dr. Zachraias were based on an estimate of 10 patients per day 3 days per week. In addition, January includes 89 patients seen by Dr. Riklon and the Resident, February includes 123 patients seen by Dr. Riklon and the Resident and March includes 111 patients seen by Dr. Alik, Dr. Riklon and the Resident.

Detail on Patient Referrals

1. Patient #2159 was referred to Straub Clinic & Hospital in Honolulu for re-evaluation of the thyroid.
2. Patient #2171 was referred to Straub Clinic & Hospital in Honolulu for evaluation of the thyroid.
3. Patient #2242 was referred to Straub Clinic & Hospital in Honolulu for follow-up on an abnormal thyroid ultrasound.
4. Patient #2269 was referred to Straub Clinic & Hospital in Honolulu for follow-up on a liver mass.

Exhibit 2

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

Rotation Schedule

I. Faculty⁶

Mar. 8 – Mar. 22 Wilfred Alik, MD

II. Residents

Dec. 10 – Jan. 4, '02 Gabriela Ortiz-Omphroy, MD
Jan. 7 – Feb. 1 Miki Purnell, MD
Feb. 1 – Mar. 1 Christina Kealoha, MD
Mar. 6 – Mar. 29 Wesley Palmer, MD

III. Other

Jan. 11 – Jan. 25 Leonard Kryston, MD – Endocrinologist
Jan. 21 – Jan. 30 Neal A. Palafox, MD, MPH

⁶ 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

Mejatto/Utrik Trip

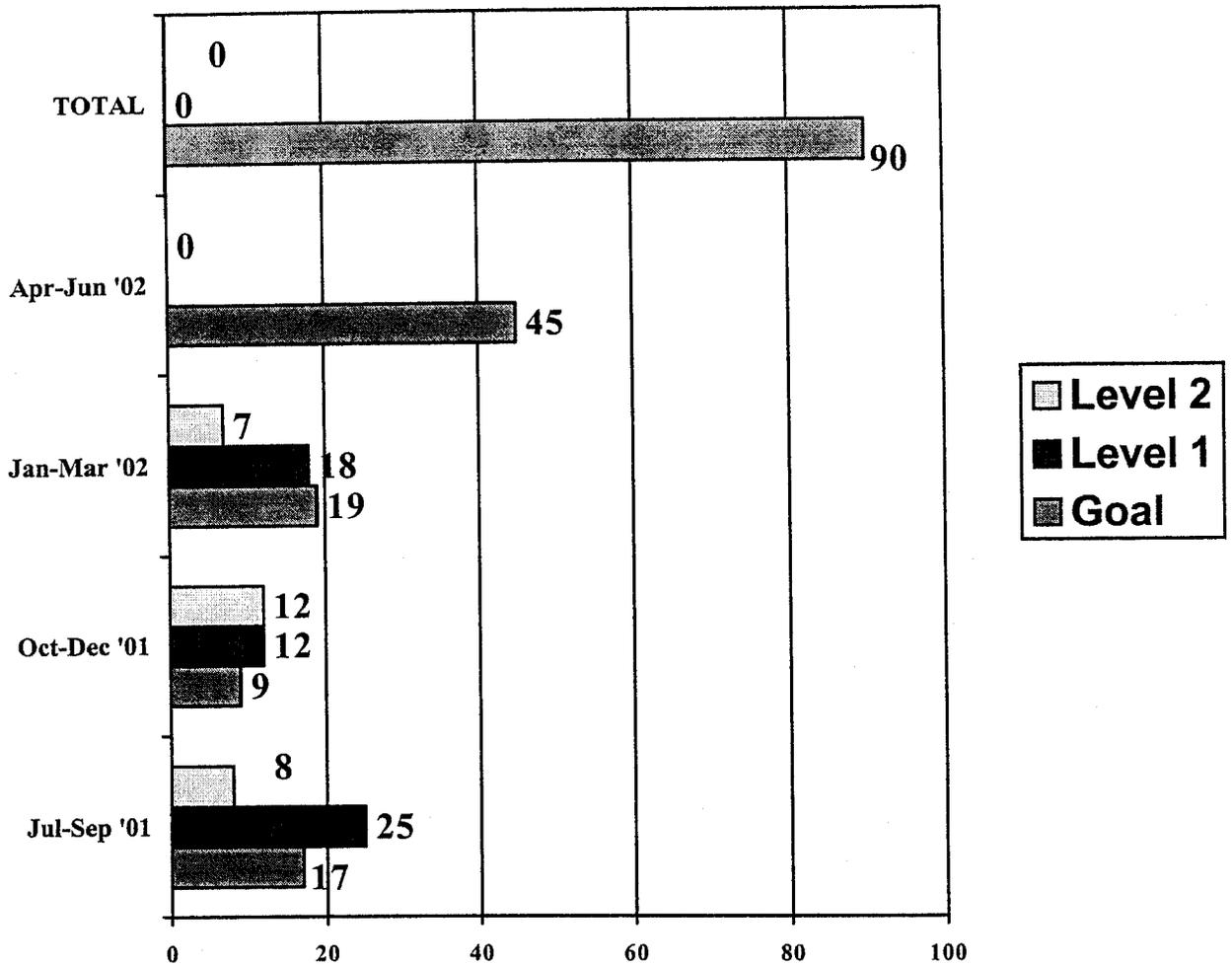
DATE	ATOLL	PHYSICIANS/STAFF*	PATIENTS SEEN
January 2002	Mejatto	Dr. Neal Palafox Dr. Sheldon Riklon Bonnita Patrick, NC	DOE 11 Non-DOE 5
	Utrik	Dr. Neal Palafox Dr. Sheldon Riklon Dr. Zach Zachraias	DOE 12 Non-DOE 5

*NOTE: MO = Medical Officer, NC = Nurse Coordinator.

Exhibit 4

Performance Measures

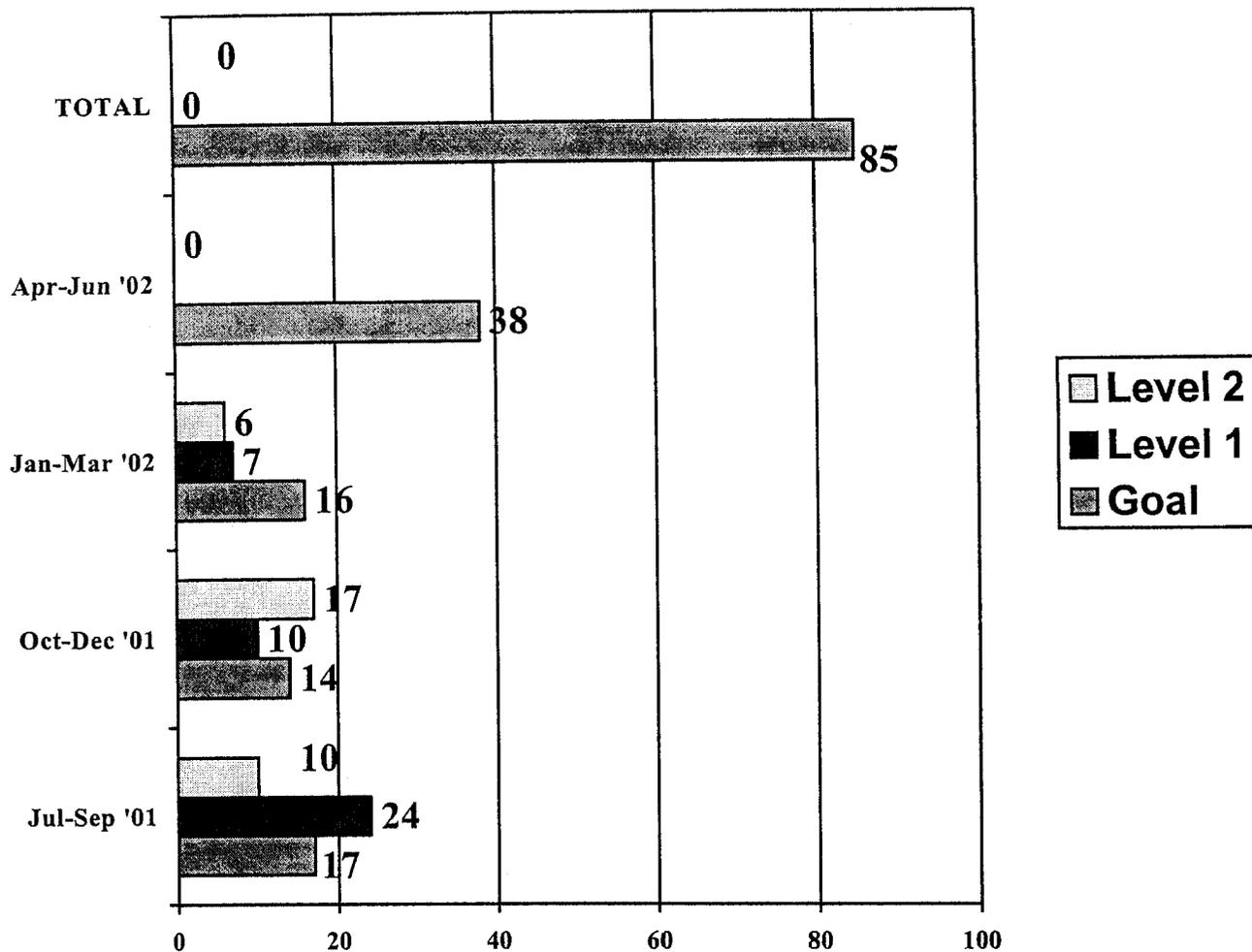
Annual Examinations - Majuro Clinic⁷



⁷ 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 Clinic ⁸



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.