

TB & Leprosy Free Majuro

WMLN Annual Conference Presentation
October 8, 2019

Where?

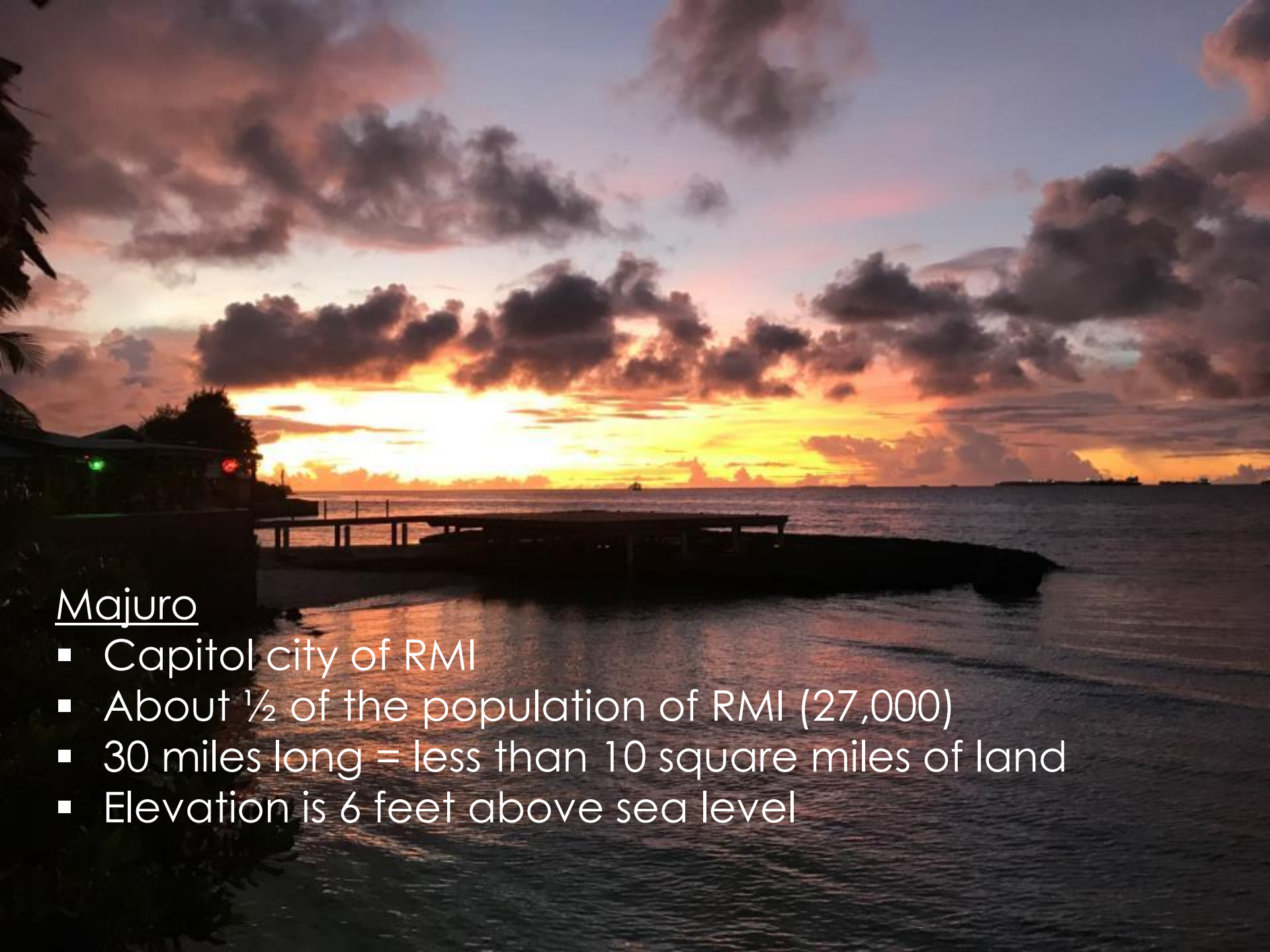


About 26 hours and 10 minutes travel time from Madison and minus one day (International date line)

Background

The Republic of the Marshall Islands (RMI)

- 2,300 miles southwest of Hawaii
- 5 to 7 degrees north of the equator
- 29 coral atolls including 1,200 islands
- Total land mass = 70 square miles
- Population = 60,000



Majuro

- Capitol city of RMI
- About $\frac{1}{2}$ of the population of RMI (27,000)
- 30 miles long = less than 10 square miles of land
- Elevation is 6 feet above sea level

Bikini Atoll - Baker test 1946



“This dome in the Pacific houses tons of radioactive waste – and it's leaking”



TN

<https://www.theguardian.com/world/2015/jul/03/runit-dome-pacific-radioactive-waste>

- 1969-79: As part of the clean-up of 3 of 40 islands, 111,000 cubic yards of radioactive waste was placed under a concrete dome, including plutonium (half-life 24,000 years).
- Due to rising sea levels, cracks are now appearing in the dome and trace plutonium has been detected in Chinese rivers.

Climate change and rising sea levels



What?

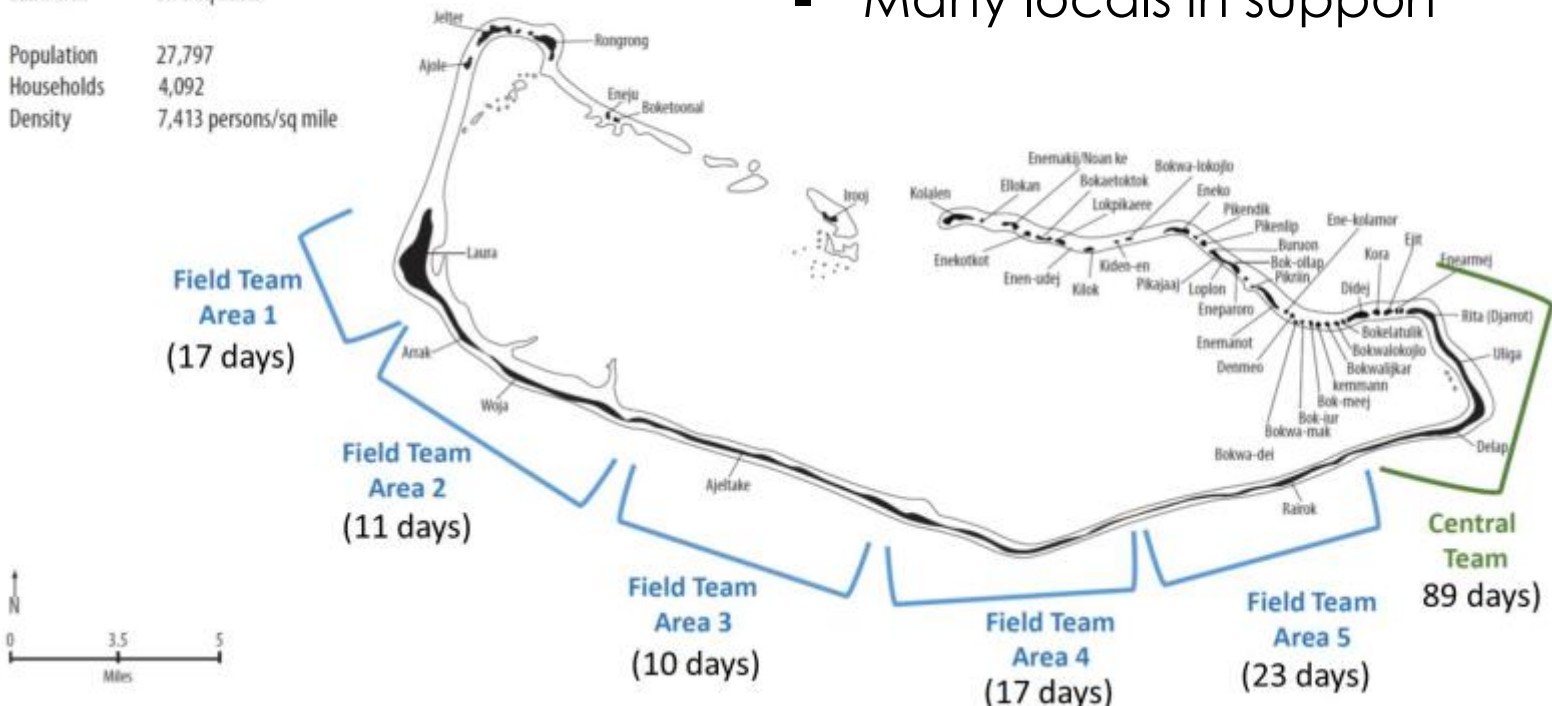


- Mass TB screening (leprosy, diabetes)
- Mass treatment of latent TB Infection
- Increased support for TB program

- 8 Groups 10-15 per group
- 3 weeks per group (24 weeks)
- Doctors, Nurses, Epidemiologists, X-ray technicians
- Many locals in support

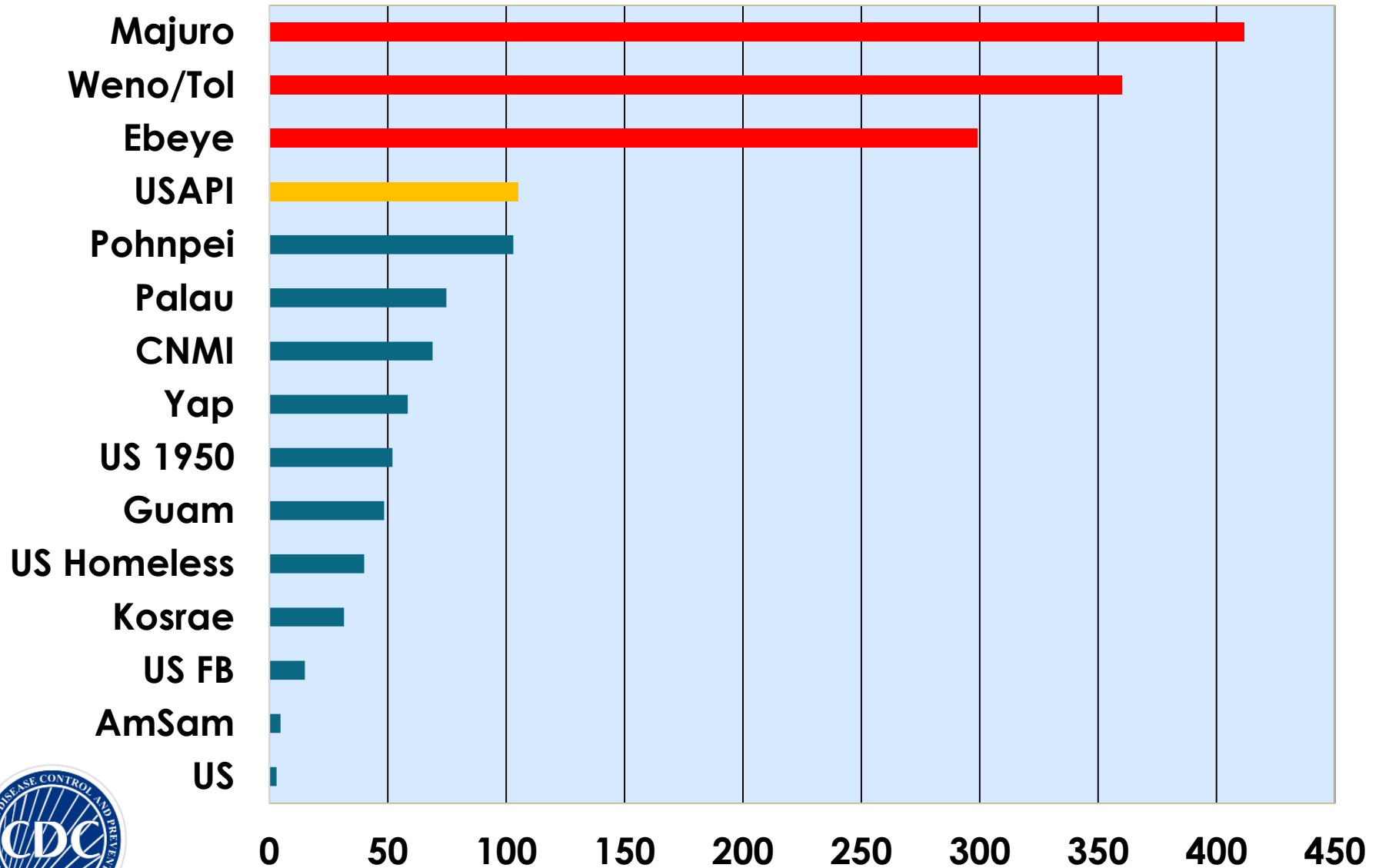
Majuro Atoll

Lagoon area	113.92 sq miles
Land area	3.75 sq miles
Population	27,797
Households	4,092
Density	7,413 persons/sq mile



Why?

TB in the Pacific



Source: Average TB Rate 2009 – 2015, EpiAnywhere



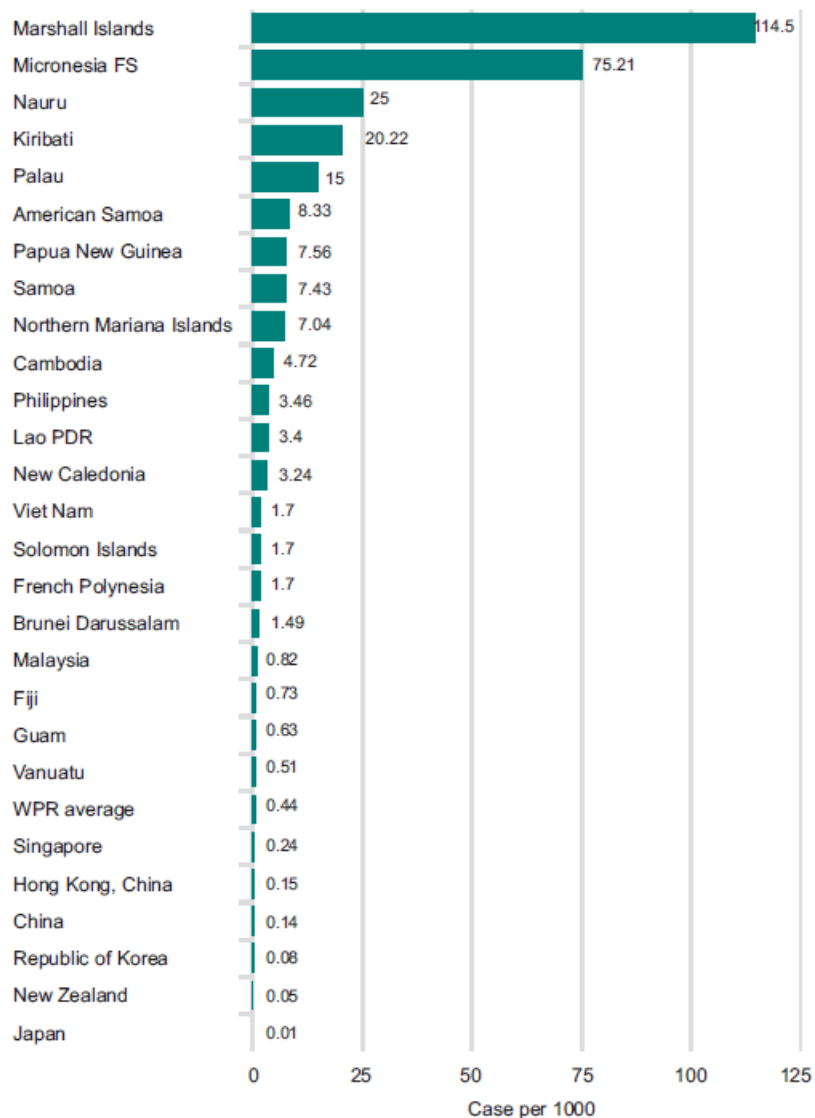
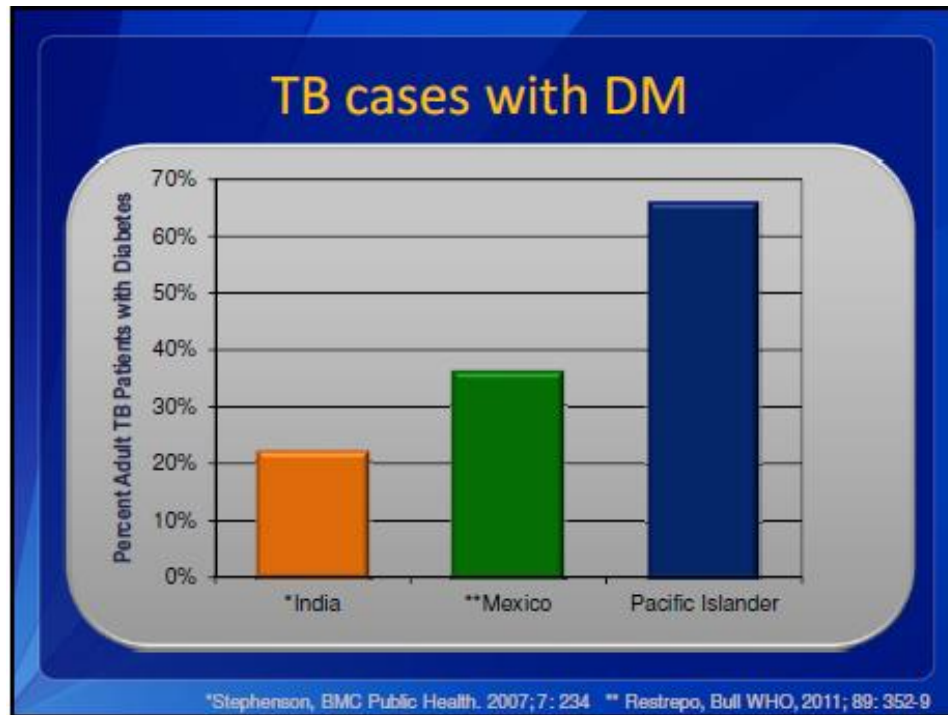


Figure 3
New case detection rate in 2001

Note: No cases were detected in Cook Islands; Macao, China; Mongolia; Niue; Pitcairn Islands; Tokelau; Tonga; and Tuvalu.

TABLE 10 Prevalence, new case detection and multibacillary forms in the Pacific island countries, 2010

Country	Prevalence		New Case Detection			
	No.	Rate x 10 000	No.	Rate x 10 000	MB	
					No.	%
American Samoa	6	0.87	0	0	0	0
The Commonwealth of the Northern Mariana Islands	3	0.45	0	0	0	0
Cook Islands	0	0	0	0	0	0
Fiji	6	0.07	2	0.24	2	100
French Polynesia	18	0.67	6	2.25	3	50
Guam	14	0.77	10	5.52	10	100
Kiribati	171	16.9	182	179.9	54	30
The Marshall Islands	103	18.9	110	202.1	43	39
The Federated States of Micronesia	137	13	117	109	62	53
Nauru	4	3.64	2	18.2	1	100
New Caledonia	9	0.37	8	3.3	4	5
Niue	0	0	0	0	0	0
Palau	6	2.7	3	13.6	3	100
The Pitcairn Islands	NR	NR	NR	NR	NR	NR
Samoa	13	0.7	12	6.5	11	92
Solomon Islands	12	0.2	14	2.6	12	86
Tokelau	0	0	0	0	0	0
Tonga	0	0	0	0	0	0
Tuvalu	0	0	0	0	0	0
Vanuatu	3	0.13	3	1.28	2	6
Wallis and Futuna	NR	NR	NR	NR	NR	NR
PICs	505	1.64	478	15.5	208	43.5
Western Pacific Region	8386	0.05	5055	0.28	4147	82



Higher death rate

Greater risk of relapse

"ALMARON̄" N̄an Kabōjrak TB Im LōBA Ilo RMI



UNITE TO → END TB



UNITE TO → END LEPROSY



"TOGETHER" We Can Eliminate TB And LEPROSY In RMI



COLLABORATION



TB & LEPROSY-FREE MAJURO

Julia Greenleaf, Public Health Nurse | volunteer 5/30/18 – 6/22/18



HISTORY

TRAINING & SET-UP

KICK-OFF & GO!



HISTORY



HISTORY



Your Jaluit hotel is ready for you!

The Licom Jaluit Hotel officially opened with a big ceremony this past Tuesday on Jabor, Jaluit. A development of the Loek family, it was the subject of speeches, music, and ribbon cutting by, from left, Atelma Reimers Timothy (daughter of Lerooj Neimat Reimers, Licom Kabua Lanki (daughter of Irooj Imata Kabua) and Antonia Loek (daughter of the late Irooj Anjua Loek).

Irooj Mike Kabua, former President/Irooj Chris Loek and the hotel's namesake, Anono Licom Loek, were among featured speakers at the opening.

Photo: Chewy Lin.

TB Stigma

refers to negative beliefs, feelings, & attitudes toward people living with TB, their families, and people who work with them.

Air Niugini set to soar over RMI skies: Page 26

The Marshall Islands JOURNAL

\$1 on Majuro

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7,000 at risk of contracting TB

Fish ship fined for choice of location

KELLY LORENNI

Over 7,000 people in Majuro are at high risk of getting sick with tuberculosis (TB) in the future — that is one in every four people living in the capital atoll.

This alarming statistic, provided with much evidence from the Centers for Disease Control (CDC) and the World Health Organization (WHO), weighed heavily in the air during the launch of Majuro's very first TB and leprosy mass screening program that took place Monday at the capital meto courtyard. Dr. Richard Brostrom, CDC Senior Advisor, stated with full confidence, "There are too many cases of TB in the Marshall Islands, and we can do something about that."

He added: "This is not a surveillance project. Working with the hospital and public health staff, we are not here to count, we are here to cure."

Of all the countries in the world, the Marshall Islands ranks in the top 10 most prevalent in TB, and top three for leprosy. In 2013, the RMI was the second most TB-affected country — this year it is number 11, which shows that we really can do something about it.



Mayor Ladle Jack and Minister Kalani Kaneko prepare to be screened for TB and leprosy. Photo: Kelly Lorenni.

Doc: 'We are here to cure, not count'

While TB is the most infectious disease worldwide, it is curable. Latent TB, or "sleeping" TB, that makes a person non-infectious at first so that they do not experience symptoms, is a cause of great concern alongside active

TB. The figures show that 7,000 people have latent TB in Majuro out of an estimated population of 28,000. But the good news is that there is a test for it and the sooner one gets tested, the sooner treatment can be provided to eliminate

the risk of spreading the disease to family members and others.

Factors such as diabetes, tobacco, alcohol, and age all can contribute to "waking up" latent TB, increasing the chance that a

Continued page 2

A Philippines purse seiner is paying a half-a-million-dollar fine for fishing illegally within RMI waters.

The Dolores 870, a Philippines-flagged fishing vessel, was caught fishing within the 50 mile radius around Majuro Atoll, waters where commercial fishing is prohibited.

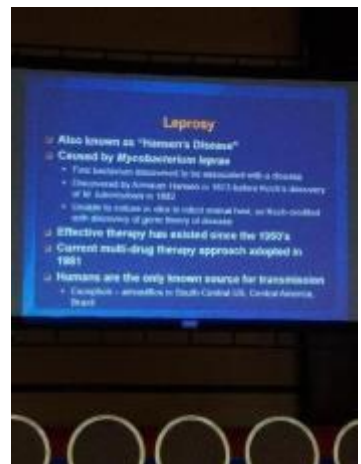
Marshall Islands Marine Resources Authority (MIMRA) recently concluded this enforcement action and one other fine of a vessel, while three different potential infractions by other fishing vessels are under investigation, according to MIMRA's Legal Advisor Laurence Edwards, II.

In February, the Tuvalu-flagged Taina purse seiner was cited by MIMRA for entering Port Majuro without notifying MIMRA within 72 hours for tuna transshipment. It was fined \$50,000.

In early April, two Fisheries Observers reported that Dolores 870 was fishing illegally in the RMI "fisheries exclusive zone," which is ocean water within a 50-mile radius of Majuro and Kwajalein. This violated the vessel's fishing license and conditions of fishing access.

The Dolores 870 was fined \$500,000, and has agreed to pay,

HISTORY



TRAINING & SET-UP



TRAINING & SET-UP



Majuro TB+Leprosy Mass Screening Opening Ceremony

MC: Francyne Wase-Jacklick,
Assistant Secretary, Office of Health Planning

Program of Events

Parade- Float
(Start at Rita/Alwal and End at Delap Park)

Opening prayer
Rev. Russell Edwards
Reform Congregational Church

Welcome Remarks
Hon. Ladie Jack
Majuro Atoll Mayor

Remarks from the Ministry
Hon. Kalani R. Kaneko
Minister of Health & Human Services

Joint Message from Technical Partners
Dr. Richard Brastrom
CDC Senior Advisor

LAUNCH of TB+Leprosy Screening
Majuro Leadership

Acknowledgements

Closing Prayers
Rev. Enja Enos
Parliament Chaplain



KICK-OFF & GO!

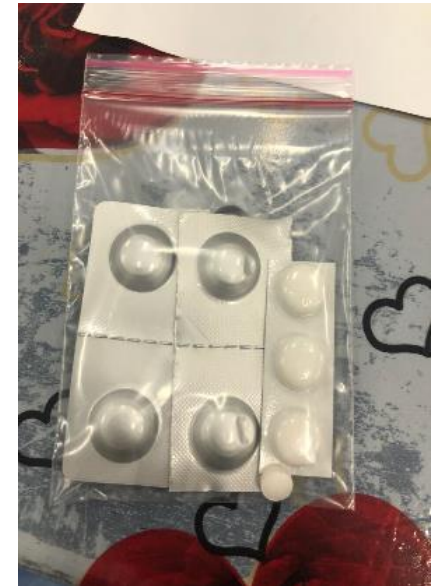
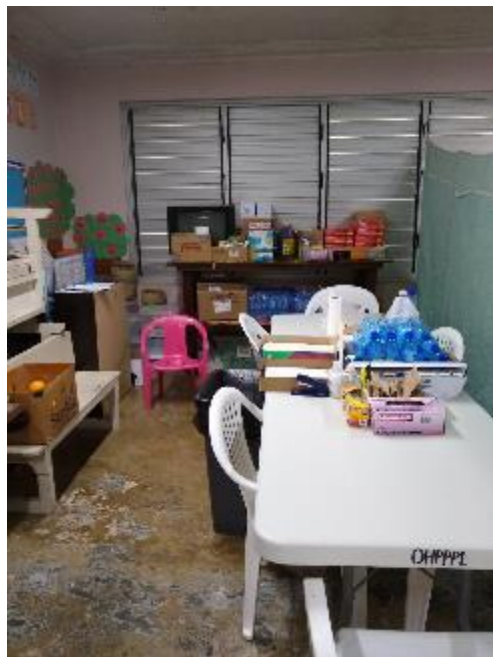
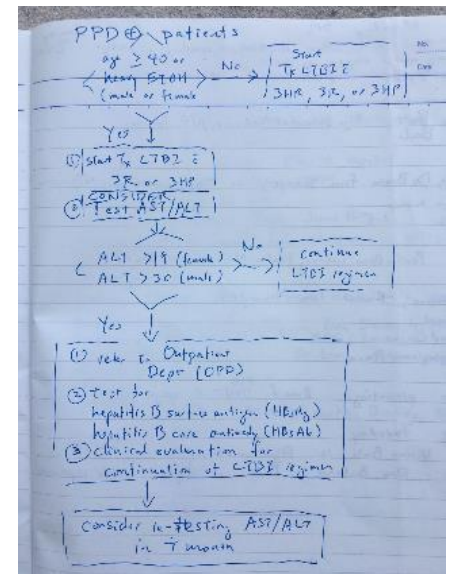


Diabetes Evaluation:

If: TST ⊕
TB s/s ⊕
CXR ⊕
71 yrs old
Presumptive HD
(in any age)

} obtain blood sugar → If blood sugar is > 120 → obtain A1C
↓
if A1C > 6.5 ?
refer to Diabetes clinic ?

KICK-OFF & GO!



KICK-OFF & GO!



Over 2,000 people screened · 14 people diagnosed with TB disease · 200+ people started on treatment for TB infection · 4 people diagnosed with Hansen's Disease · Systems in place for ongoing screening, diagnosis, and treatment moving forward

LEGACY

A tropical beach scene featuring two prominent palm trees. The tree on the left is tall and slender, while the one on the right is shorter and fuller. In the background, a rocky shoreline meets the ocean under a bright blue sky with scattered white clouds. The foreground shows a paved area and some low-lying vegetation.

NEXT VOLUNTEER

ANN MISCH MD

Lawrence R. Goodman

Felson's
Principles
of Chest
Roentgenology
A Programmed Text

THIRD EDITION

SAUNDERS
ELSEVIER





YOKWE
WELCOME TO MAJURO ATOLL
Capital of the Republic of the Marshall Islands
AMATA KABUA
INTERNATIONAL AIRPORT





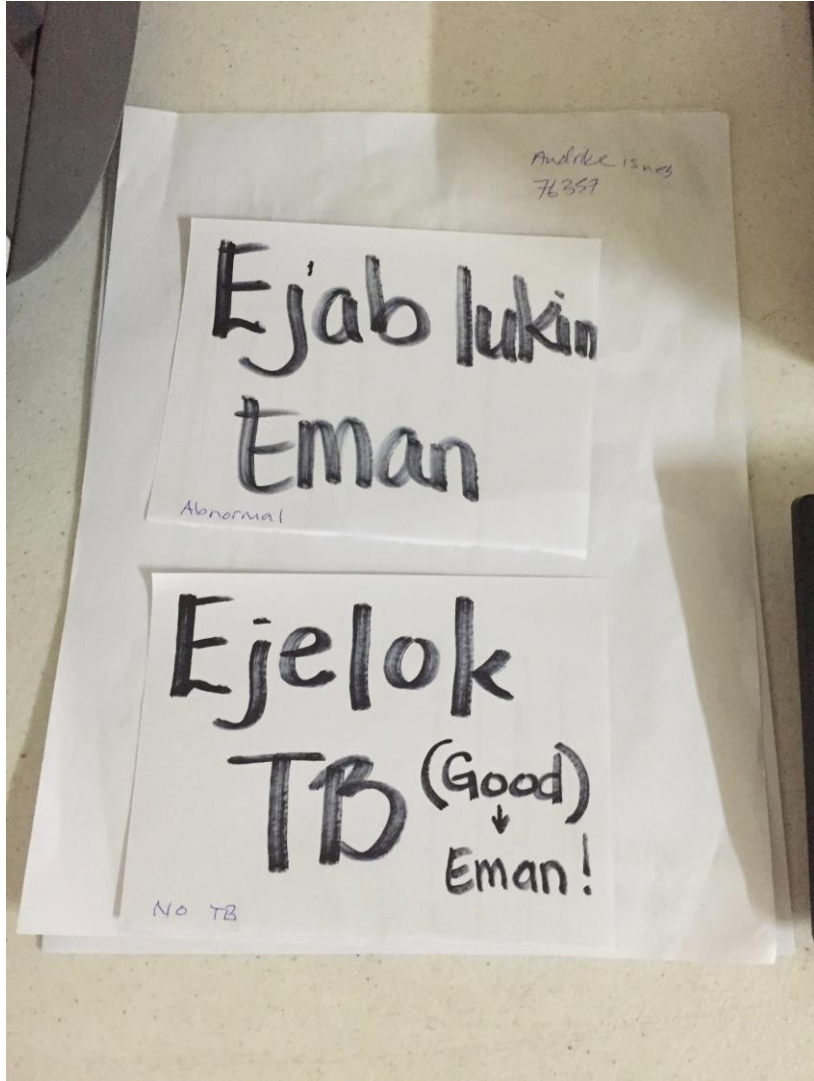
3.95



7.15



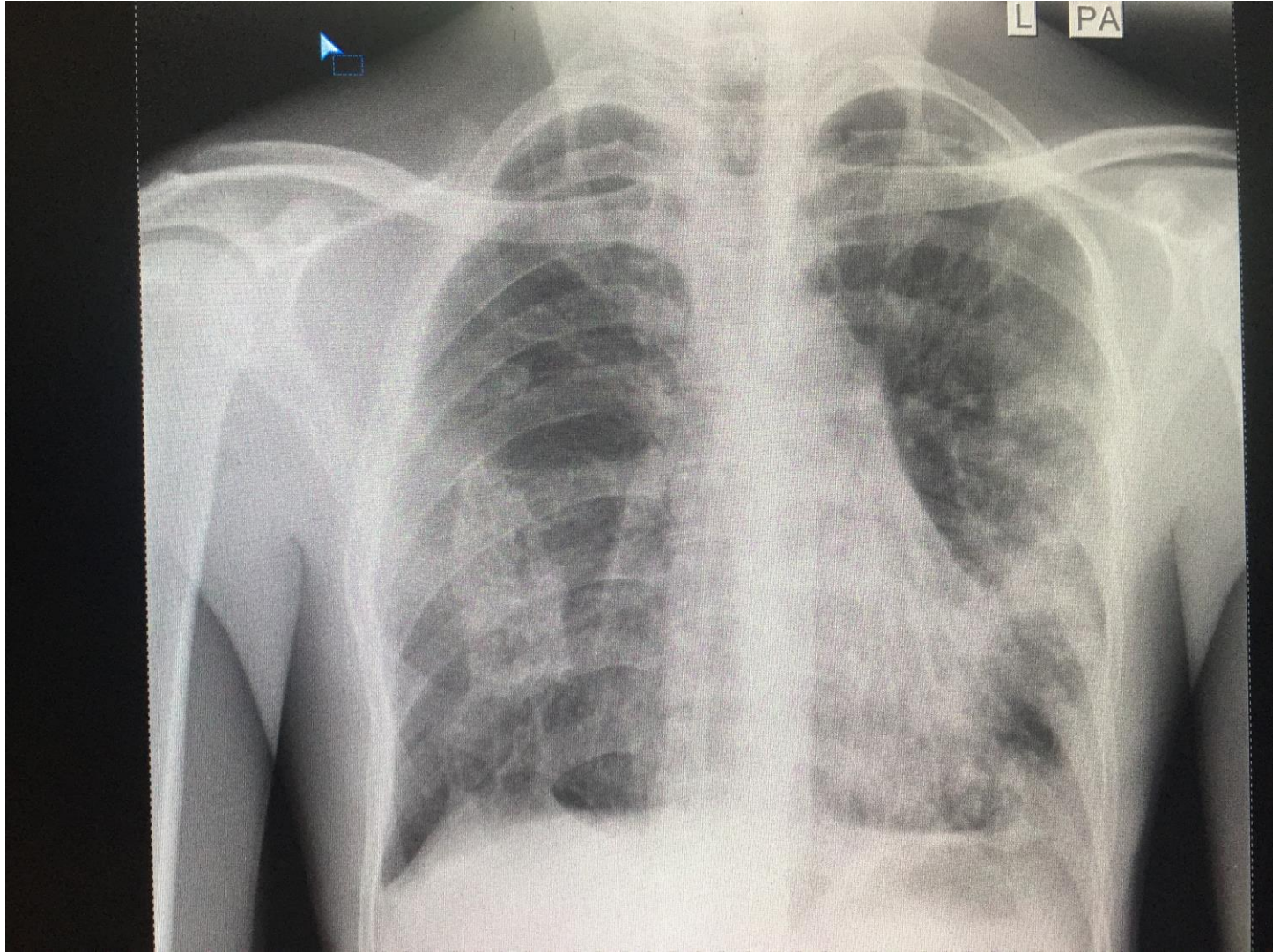






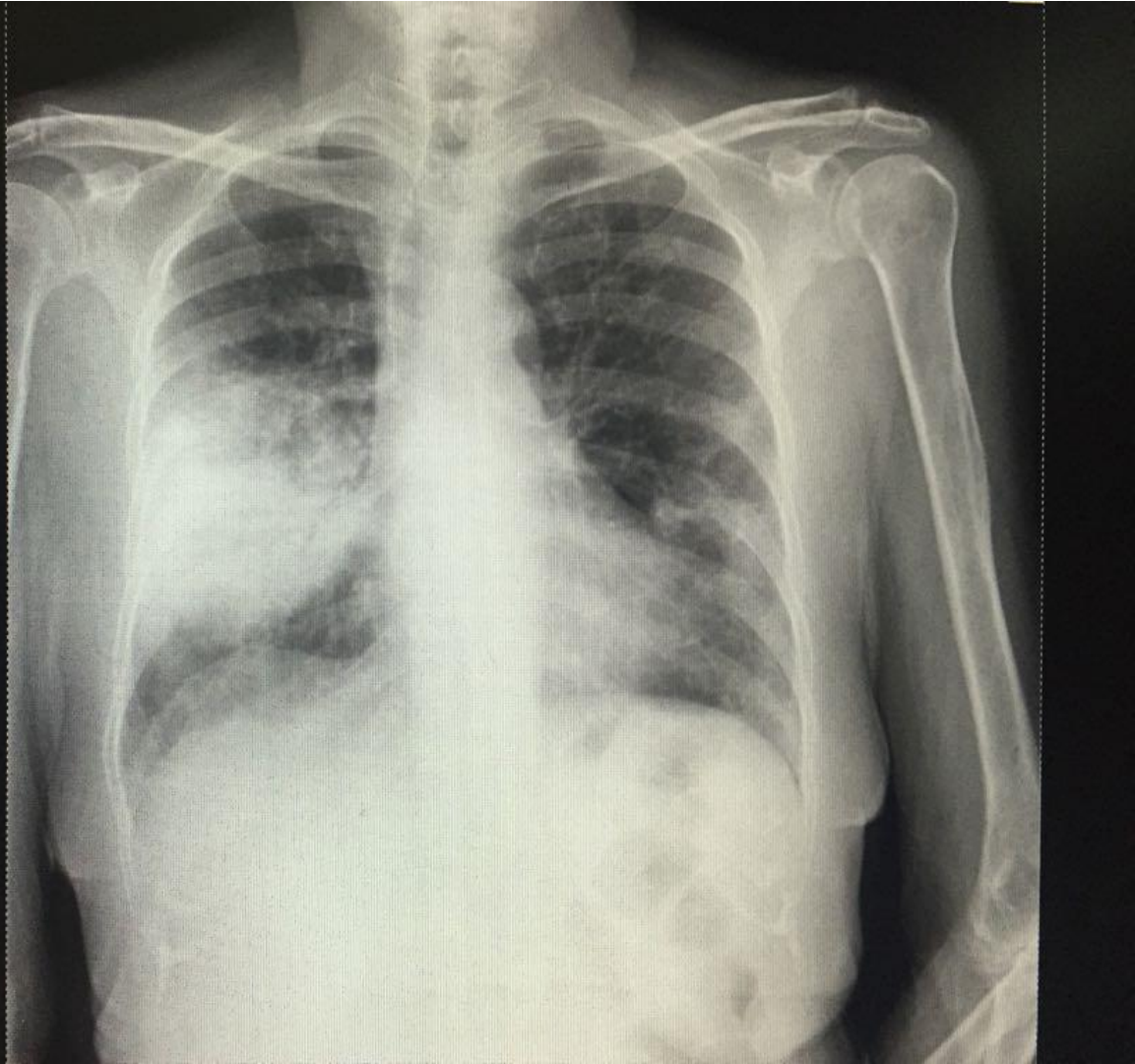








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NEXT VOLUNTEER



PHILIP WEGNER



IMG_0840.MOV





















OUTCOMES

Outcomes : TB + Leprosy Free Majuro

Screening Process	Total	Percent
First screening at home	22,402	82% of population reached
Completed screening	19,136	85% completed second visit



Outcomes : TB + Leprosy Free Majuro

Active TB	Total	Percent
Started Treatment	307	1,604 active TB diagnoses per 100,000 people screened
Latent TB (sleeping TB)		
Latent TB Diagnosis	5,367	29% of people screened diagnosed with Latent TB
Recommended for Latent TB Treatment	4,897	9% with latent TB were not medically eligible for latent TB treatment
Started Latent TB Treatment	4,705	96% of eligible patients started latent TB treatment

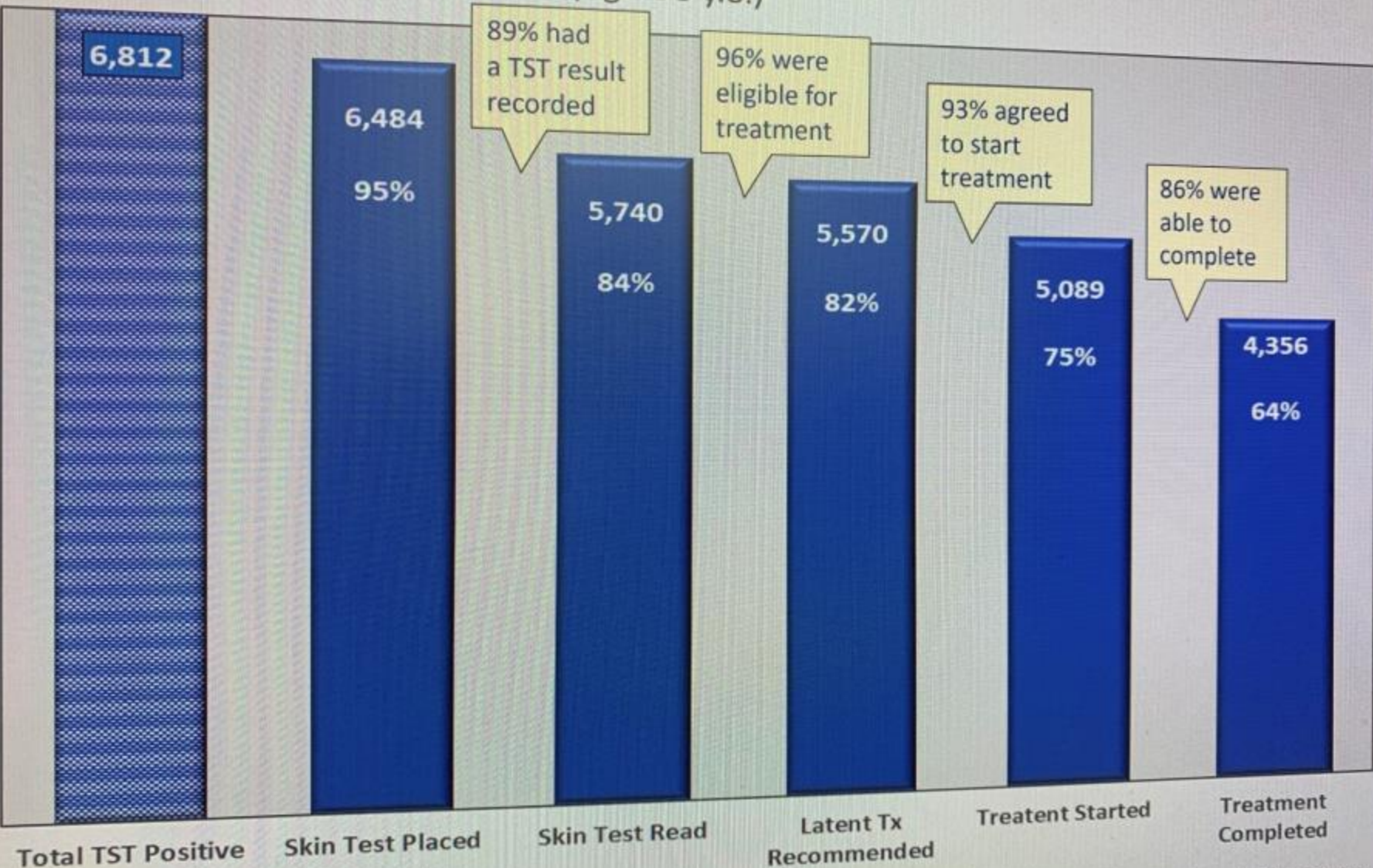


Outcomes : TB + Leprosy Free Majuro

Leprosy	Total	Percent
Referred for evaluation	394	2.5% of people screened were referred for leprosy evaluation
New cases of leprosy	54	14% of referred patients were diagnosed with leprosy
Diabetes		
Identified with diabetes (A2c \geq 6.5)	929	24% of people screened for diabetes have diabetes
New diagnosis of diabetes	409	11% of people screened for diabetes were newly diagnosed



LTBI Treatment Cascade for "TB and Leprosy Free Majuro", 2018 (Age ≥ 5 y.o.)



Total TST Positive (estimated)

Skin Test Placed

Skin Test Read

Latent Tx Recommended

Treatment Started

Treatment Completed

* Defined as TST ≥ 10mm, or ≥ 5mm for known household exposure

Iakwe!

