

EMSC Performance Measures and PIER

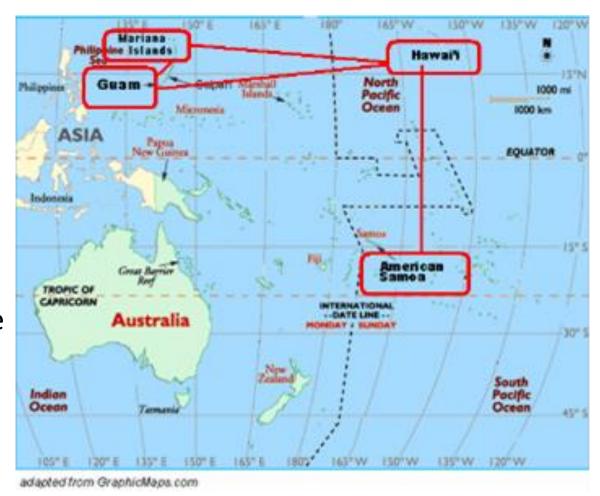
- 2005 introduced to EMSC community
 - PM 74 and 75 (04 and 05) regional systems of care recognizing pediatric capabilities
 pediatric trauma and medical recognition programs only 1 hospital per territory
 (excluding Guam)
 - o 76 and 77 (06 and 07) availability of inter-facility transfer agreements and guidelines
 - ☐ Lack of agreements
 - ☐ Lack of guidelines
 - ☐ Transfer Hawaii, Philippines, Japan and New Zealand
 - ☐ Challenges transfer itself, language differences, different standards, insurance, cost and follow-up care.





Working Together Across the Pacific – in the Beginning

- 2009 Region first comes together
- Original Members
 - EMSC program managers
 - EMS medical directors
 - EMS Directors from Hawai'i,
 Guam, the Commonwealth of the
 Northern Mariana Islands (CNMI)
 and American Samoa.
 - Program and Resource Centers representatives

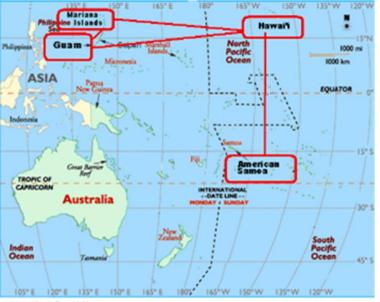




PIER Goals

Goal –explore barriers to pediatric specialized medical care in the Pacific and identify opportunities to reduce/eliminate barriers.

- Why –establish a venue to:
 - Work on common challenges:
 - ❖ Pacific isolation
 - Limited resources
 - o Identify opportunities:
 - To share resources and expertise,
 - ❖ To learn from one another
 - To implement best practices across the Pacific
- Proposed process regular in-person meetings as well as frequent conference calls
 - 2010 meeting of the territories



adapted from GraphicMaps.com

Getting to Know You – 2010 Hawaii

- Imposed Geographic isolation
 - 8000-15000 miles of separation from closest US state Hawaii
 - Typical transfer modes not available nor suitable over 8000 miles of ocean – not alone
- Common history, geography and cultures though individual differences per territory – not alone
- Resource limitations with emphasis on pediatric specialists/subspecialists – not alone
- Explore *inter island transfer practices* of individual territories as well as within region challenges and successes
- Discuss data availability
 - To identify pediatric specialty care needs and resource availability in the Pacific
 - To define magnitude of inter island transfer



Pacific Islands Medical Services

- Denise Kekuna, Referral Coordinator
- Kapi'olani Medical Center for Women & Children – Kapi'olani Medical Specialists
- Pali Momi Medical Center
- Straub Clinic & Hospital King Street –
 Adult Care Center plus 8 outpatient satellite clinics
- Wilcox Memorial Hospital Kaua'i Medical Center



Next Steps



- Define a common set of BLS
 Guidelines for transfer of non critical patients
- Update individual Territory Fact Sheets
- Plan to reconvene in Hawaii 2011





2011 PIER - Hawaii

- All things Pacific specific
 - Individual territory infrastructure
 - Hawaii pediatric resources
 - Tour of pediatric hospital Kapio'lani Medical Center Woman and Children's, and learn of pediatric resources available in the Pacific
 - Ocean specifics and impact on territories Atolls, who are we missing FSM,
 Palau and Marshall Islands
 - Territorial EMS structure, challenges and opportunities focus pediatric education, protocols and equipment
 - Beginning discussion regarding use of telemedicine during transfer to definitive care
- Regular meeting structure defined
 - Regional meeting to be held in conjunction with annual grantee meeting
 - Annual regional meeting to be hosted by each of the PIER territories
 alternating sites each year 2012 group to meet in CNMI
 - Group work to be supported via regular conf. calls

Success Current PIER Progress

BLS Guidelines & Pacific Region Summary white paper

Regional **Transport and Transfer** Guidelines February 2010 HOSPITAL

Interfacility Transfer of Children in the US Pacific Islands

EXECUTIVE SUMMARY

The US Territories of American Samoa, Guarn, the Commonwealth of the Northern Marianas Islands and the State of Hawaii are geographically isolated from the U.S mainland by thousand of miles. Medical resources on the islands are limited and getting specialty care for ill and injured patients is a challenge unlike any other seen in the US mainland.

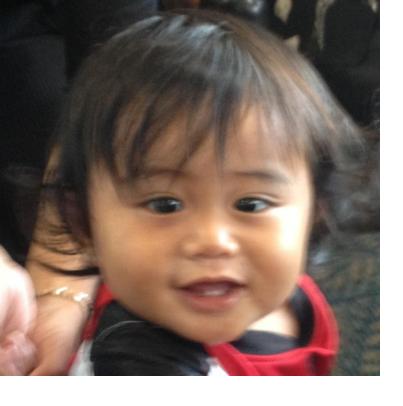
In April 2010, in an effort to improve the quality of care and transfer of all patients within the pacific region, the Emergency Medical Services for Children (EMSC) program managers from the Pacific Islands formed the Pacific Islands EMSC Region (PIER). In conjunction with the Hawaii Emergency Medical Services Information System (HEMSIS) conference, the PIER group met for the first time with a few stakeholders to discuss Emergency Medical Services (EMS) & EMSC related issues within the region. As a first step, the group sought to develop regional Basic Life Support transport guidelines that would facilitate the transfer of non-critical patients.

Planning for 2012 Regional Meeting CNMI – Saipan (Dec.)





				PEDIATRI/	C OFF ISLANI	D REFERR/	ALS				
Р	rovider: K	(apiʻolani	Women &	Children Me	edical Center,	, Pali Momi (Center, Ka	pi'olani Me	dical Spe	cialists	
										,	
										,	
							1		1	,	
Year 2009		DIRECT	Γ ADMIT TR	ANSFER	OUTPAT	TIENT REFE	RRAL				
					Insurance	SELF	SELF	ER	ER to	,	outside
Origin	TOTAL	PICU	PAU	NICU	or Govt	(w/lns)	(No Ins)	(Walk in)	Adm	DEFERRED	network
Am Samoa	8	1				1	6	6	6	,	
Guam	26				14	11	1	3	1	1	3
Saipan	22	2	1	6	12		1		1	1	
FS Micronesia	3					3	1		1	,	
Marshall Islands	12			1		10	1		1	,	
	71								1		
									1		
Year 2010		DIRECT	F ADMIT TR	ANSFER	OUTPAT	TIENT REFE	RRAL		1		
					Insurance	SELF	SELF	ER	ER to	7	outside
Origin	TOTAL	PICU	PAU	NICU	or Govt	(w/lns)	(No Ins)	(Walk in)	Adm	DEFERRED	network
Am Samoa	7		1				6	5	3	,	
Guam	33			/ ·	19	8	6	5	2		
Saipan	20			/ ·	17	2	'	1	1		
FS Micronesia	4					4	'	1			
Marshall Islands	21			/	1	19	1	1	1		
	85									,	



Are there additional/better options for providing better care for children in the islands?





Telemedicine?

Shriner's Ortho
Telemedicine Program

Saipan focus - Telehealth

- New members join PIER
 - inter island transfer coordinators
 - Pacific Basin Telemedicine Pacific Resource Center
- Sifting and sorting of inter facility transfer information
- Opportunity to tour and assess
 EMS and the Commonwealth Health
 Medical Center pediatric capabilities
- Planning for 2013 PIER Guam







Pacific Inter Island Transfer

Year	All Transfer Number	Transfer of children – 1 day to 15 years of age	Pediatric Patient Destination	% of Pediatric Transfers
2011				
2010				
2009				

Pediatric Patient Transfer Diagnoses (top 5 for years 2009-2011)	%

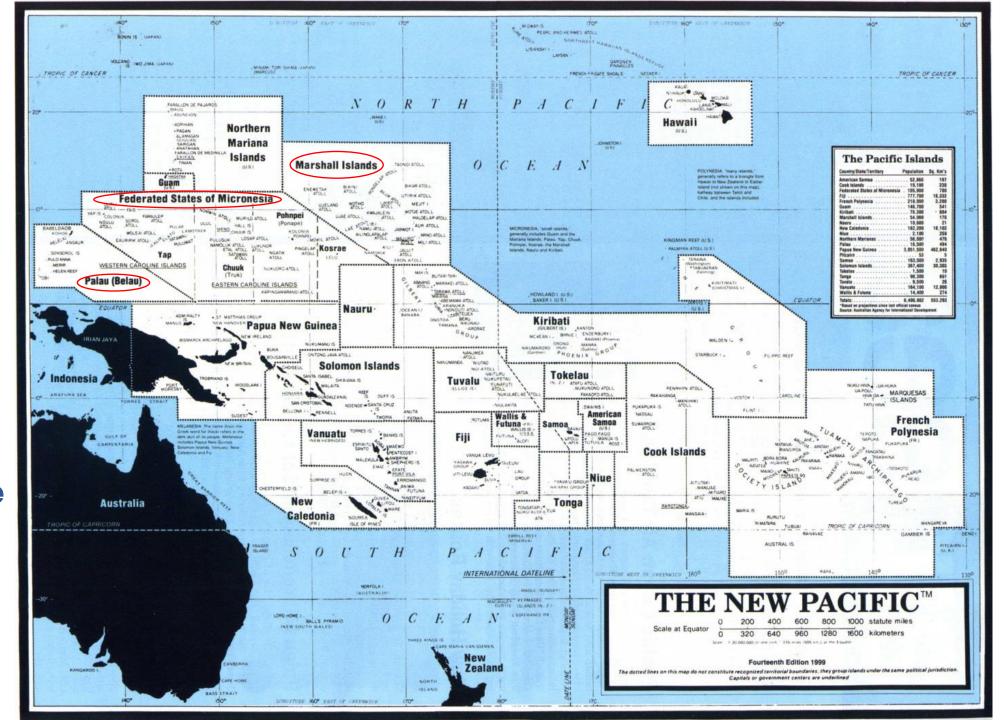


Dollar expenditure in transfer of all patients in total for each of the years — is this available?

Average cost of inter-island transfer/does this differ for children?



2013 – June Pacific Transition



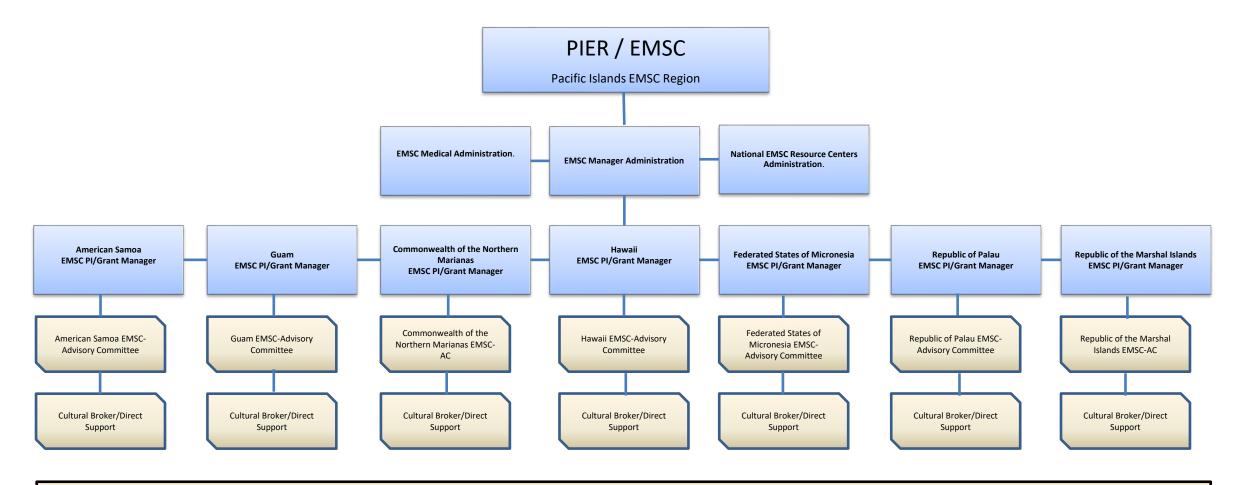


2013 PIER- Guam

- Preconf. PALS nurses/EMS
- Tour Guam Memorial, showcasing pediatric capabilities
 - Transfer incubator
 - Commercial airline coordination
- Return to inter facility/inter island transfer More complete data gathered
 - > Data
 - # of transfers
 - Diagnosis
 - Cost/insurance
 - o LOS
 - Process
 - Steps of initiation sending/receiving facilities
 - Approval transport vehicle/equipment arrangements
 - Patient provider during transfer
 - Family considerations
- Explore possibility of future funding for regional work
- Pacific Island Inter Facility Guideline template to be developed



Pacific Islands Emergency Medical Services for Children Region – 2013 Org Chart



Community Resources, Advocates & Industry Experts

Evaluating Pacific Pediatric

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			rts
501			

		Pacific Inter Island Trans	fer – Am Samoa	
Year	Number of	Transfer of children –	Pediatric Patient Destination	% of Pediatric
	Transfers	1 day to 17 years of age		Transfers
2011	140	21	Honolulu	6.6%
2010	91	4	Honolulu	22.75%
2009	138	14	Honolulu	9.8%

- Total pediatric patients for 2009 is 25, 21 left on their own (some have private insurance, TRICARE, Medicare, or Akamai program), 3 no funds, and 1 Shiners' case)
- . Total pediatric patients for 2010 is 19, 4 actually left on their own and 15 did not have funds
- Total pediatric patients for 2011 is 25, 8 left on their own, 4 Shiners', 10 no funds, and 3 deceased

The patients that actually left have private insurance, TRICARE, Medicare, or the Akamai program.

Pediatric Patient Transfer Diagnoses (top 5 for years 2009-2011)	%
Leukemia	4.6%
Congestive Heart Failure	3.8%
Cleft Palate w/tube feeding	9.8%
Lung Disease	7.6%
Acute Rheumatic Fever	7.6%

		W&C and Strau	b Clinic & Hospital	
Year	Total Adult/Ped Count = 2,470	Pediatric Encounters Ages 1 day to 17 years Count = 287	Referring En	ity % of Pediati
2011	910	88	Am Samoa, Guam, Saipar Okinawa, Chuuk, Pohnpe	
2010	855	102	Am Samoa, Guam, Saipai Kosrae, California	n, Majuro, 14%
2009	710	98	Am Samoa, Guam, Saipai Kwajalein, Chuuk	n, Majuro, 14%
DEFE	RRED COU	INT DIAGNOSIS (Ped)		REASONS for Deferra

		Pacific Inter Island Tra	nsfer - GUAM	
Year	Number of	Transfer of children –	*Pediatric Patient Destination	% of Pediatric
	Transfers	1 day to 17 years of age		Transfers
2011	6/60	No age data		10%
2010	10/77	No age data		13%
2009	19/78	No age data		24%

*St. Luke's, Philippines; Children's Hospital, Los Angeles; Commonwealth Health Center, Saipan, CNMI; Asakati Sogoru Hospital, Japan; Loma Linda University Medical Center, CA; UCLA Children's Hospital; Philippine Heart Center; Asan Hospital, Korea; National Kidney Institute, Philippines; St. Luke's Global City, Philippines; Kapiolani Hospital for Women and Children, HI

Pediatric Patient Transfer Diagnoses (top 5 for years 2009-2011) - GUAM	%
Cardiac	40%
Gastrointestinal	23%
Pulmonary	17%
Neurological	14%
Hematology	1%

		Pacific Inter Islaı	nd Transfer	
Year	Number of Transfers	Transfer of children – 1 day to 15 years of age	Pediatric Patient Destination	% of Pediatric Transfers
2011	798	72	Guam, Hawaii & Philippines	9
2010	1117	100	Guam, Hawaii & Philippines	8.9
2009	924	72	Guam, Hawaii & Philippines	7.8

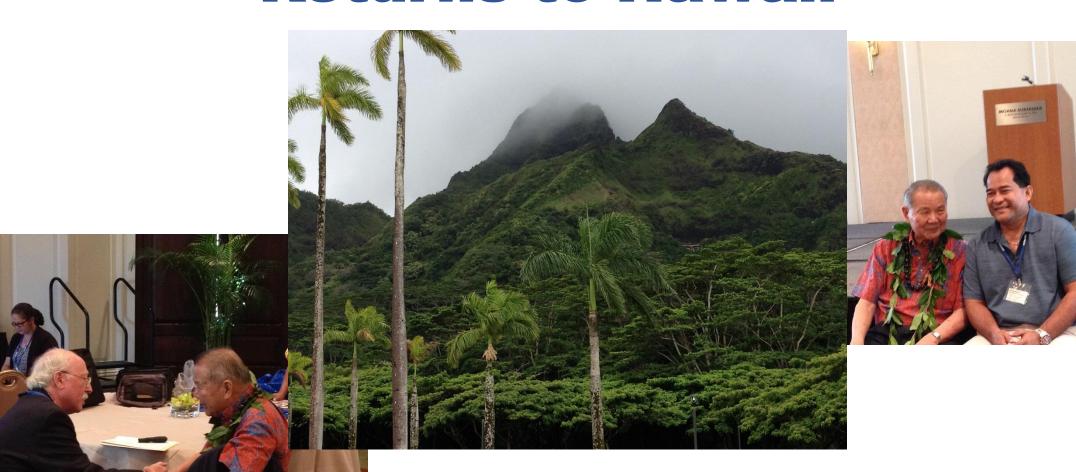
Pediatric Patient Transfer Diagnoses (top 5 for years 2009-2011)	%
ENT	18
Cardiology	7
Oncology	9
Orthodontic	9
Urology	6



Planning Ahead – Explore Dual Approach

- Hawaii 2014
- New Partners -
 - Shriners
 - University of Hawaii Telecommunications and Social Informatics Research Program (TASI)
- Inter island transfer Guideline Template?
- Invite Pacific Neighbors FSM, Palau and Marshall Islands

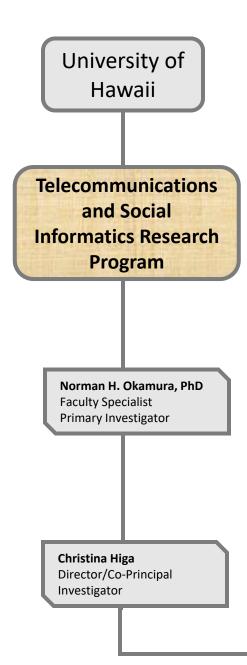
2014 PIER Returns to Hawaii





- Opportunity to hear from one of the EMSC founders

 Dr.
 Sia
- FSM officially joins PIER
- Discussions re EMT training in Pacific
- Guam disaster planning highlighted
- Tour and showcase telemedicine capabilities of University of Hawaii (next few slides)
- Develop plan and timeline for telemedicine equipment installation and development of formal agreements original PIER islands
- EMSC Grantees to assist TASI with coordination of communication with hospitals in their territories



- In alignment with the University of Hawaii
 Strategic Plan Goal 3, the UH TASI is dedicated to strengthening and advancing the local, regional and international initiatives and collaborative opportunities.
- TASI conducts, facilitates and supports basic and applied research into Information and Communication Technology (ICT) policy, regulation, technology systems and applications in Hawaii and the Pacific Islands Region and shares its knowledge through education, training, workshops, and other program activities.
- TASI's areas of research include distance learning, telehealth and Health Information Technology and its application in rural and remote communities within Hawaii and the Pacific Island economies

the HRSA funded Pacific Basin Telehealth Resource Center (PBTRC)

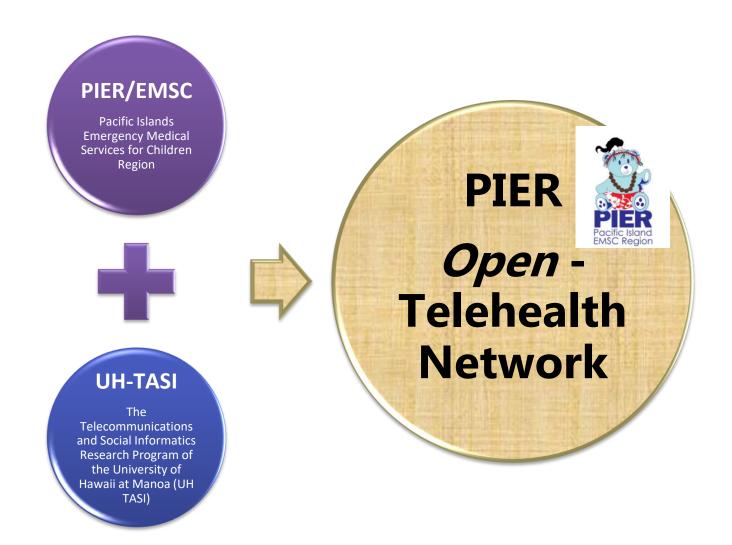
TASI Support Specialist Team

Thomas Okamura
Manager, Systems and

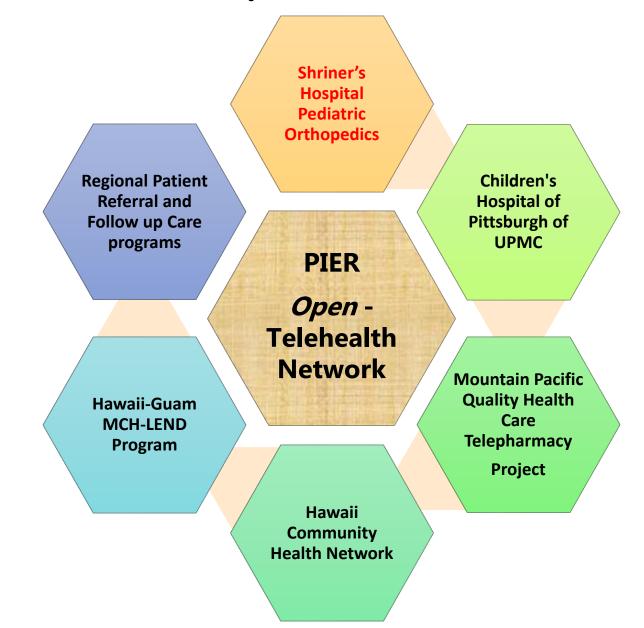
Operations

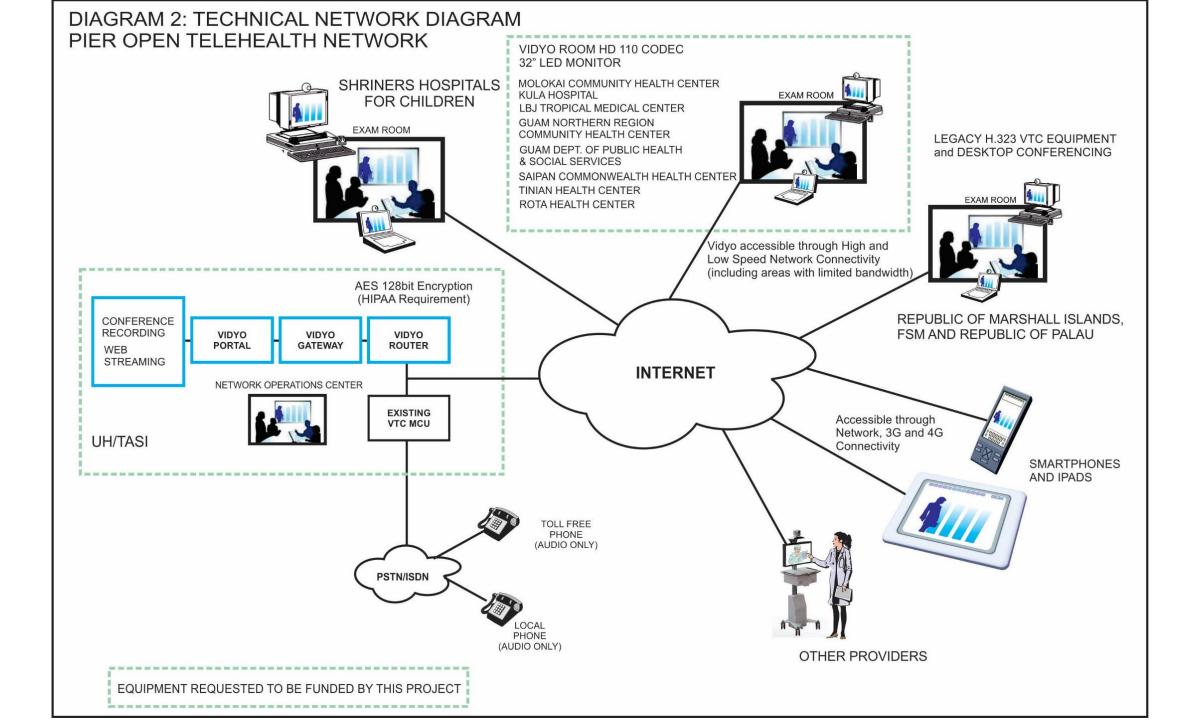
Kaina Lingaton Senior ICT Specialist

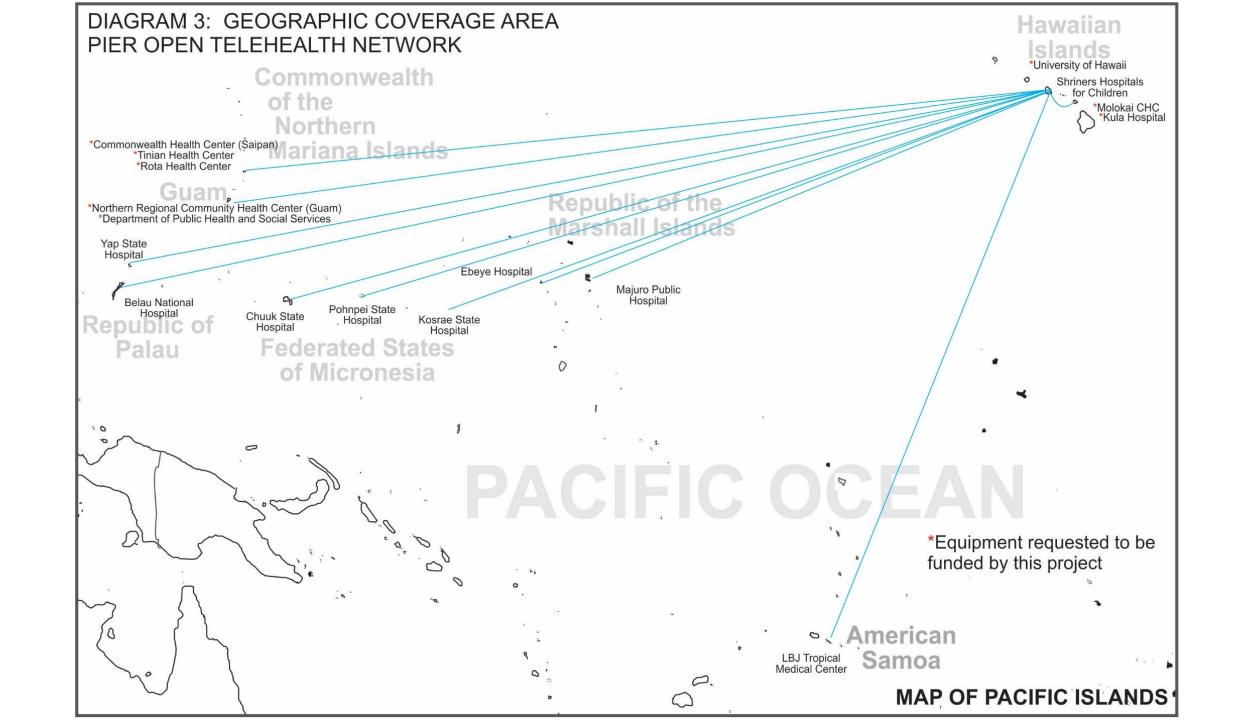
Pacific Region Partnership



Initial PIER Open-Telehealth Projects







PIER Continued Development

- ✓ System Security, Application, and Implementation
- ✓ EMSC Business Plan(s)
- ✓ Refine and Implement Shriner's Hospital for Children Orthopedics Program
- ✓ Establish Network Policies, Procedures and Administrative Rules
- ✓ Collaborate on Quality Assurance and System Survey Processes











Learning from where we began and building upon our accomplishments

Implications:

- Evaluate efforts/work
 - Transfer
 - Education
 - Disaster
 - Telemedicine implementation/utilization
- Establish a Pacific Island Patient Transfer Registry
- Identify opportunities for improvement propose that collectively PIER functions as a QI collaborative. Can we implement the science of QI to effect change???
- Circle back to assess progress? Project priorities???

Pacific Basin Telehealth Resource Center

PBTRCTELEHEALTHPACIFICISLANDS NEWSLETTER

VOLUME 8 ISSUE 01 APRIL 2019





Shriner Hospital's Medical Director, Dr. Ono, with his telehealth coordinator, Susan Yamamoto, continue to expand their services to the underserved areas across the Pacific Islands. Now they are having regular teleconferences with Kosrae! Their orthopedic services to children 18 and under are world class. We are very fortunate to have them servicing Micronesia. Tentative 2019 Schedule for Island Visits by Shriner doctors: Note: Please contact their local pediatric clinic or Sandy Zukeran at SHC for specific information.

REPUBLIC OF MARSHALL ISLANDS
 (MAJURO) end of March to first part of April o AMERICAN SAMOA / SAMOA May o GUAM / SAIPAN / TINIAN / PALAU late July to mid August

o FEDERATED STATES OF MICRONESIA (CHUCK, POHNPEI, KOSRAE, YAP) September o KIRITIMATI / KIRIBATI October o AMERICAN SAMOA November o MICRONESIA (CHUCK, POHNPEI, KOSRAE, YAP) September

Pohnpei Conducts First Live Gastrointestinal Endoscopy Consultation by Video Teleconference





