2022

U.S. Affiliated Pacific Island Countries & Territories Telehealth Workshop Report

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PACIFIC BASIN TELEHEALTH RESOURCE CENTER
THE UNIVERSITY OF HAWAI'I AT MĀNOA

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List of Acronyms

Abbreviation	Definition
AHEC	Pacific Basin Area Health Education Center
AI	Artificial Intelligence
ANZGITA	Australian & New Zealand Gastroenterology International Training Association
ATLAS	Accessing Telehealth through Local Area Stations
CAA	Consolidated Appropriations Act
CAH	Critical Access Hospital
CDC	Centers for Disease Control & Prevention
CHC	Community Health Center
CME	Continuing Medical Education
CMS	Centers for Medicare & Medicaid Services
CNMI	Commonwealth of the Northern Mariana Islands
CoPI	Cycle of Performance Improvement
CVT	Clinical Video Telehealth
CY	Calendar Year
DoD	Department of Deference

List of Acronyms

Abbreviation	Definition
DOH	Department of Health
DPHSS-BPCS	Department of Public Health & Social Service - Bureau of Primary Care Services
ECG	electrocardiogram
ECHO	Project Extension for Community Healthcare Outcomes
EHR	Electronic Health Records
eICU	Electronic Intensive Care Unit
E/M	Evaluation and Management
ESL	English as second language
FQHC	Federally Qualified Health Center
FSM	Federated States of Micronesia
GMHA	Guam Memorial Hospital Authority
GRMC	Guam Regional Medical City
HHS	U.S. Department of Health & Human Services
HIE	Health Information Exchange
HIT	Health Information Technology

List of Acronyms

Abbreviation	Definition
HRS	Hawai'i Revised Statute
HRSA	Health Resources & Services Administration
IEEA	International Society for Quality in Health Care External Evaluation Association
JABSOM	John A. Burns School of Medicine
LBJ	Lyndon Baines Johnson Tropical Medical Center
MOUD	medication for opioid use disorder
NAWSON	Nancy Atmospera-Walch School of Nursing
PBMA	Pacific Basin Medical Association
PBTRC	Pacific Basin Telehealth Resource Center
PEACESAT	Pan-Pacific Education & Communication Experiments by Satellite
PFS	Physician Fee Schedule
PHE	Public Health Emergency
PIPCA	Pacific Islands Primary Care Association
REH	Rural Emergency Hospital
RMI	Republic of the Marshall Islands

List of Acronyms

Abbreviation	Definition
RPM	Remote Patient Monitoring
SME	Subject Matter Experts
TAMC	Tripler Army Medical Center
TASI	Telecommunications & Social Informatics Research Program
TCT	Telehealth Clinical Technician
THSSC	UH Translational Health Science Simulation Center
TIPE	Telehealth Interprofessional Education
UH	University of Hawai'i
USAPICT	U.S. Affiliated Pacific Island Countries & Territories
VA	Veterans Affairs
VVC	VA Video Connect
WCCHC	Waianae Coast Comprehensive Health Center

Executive Summary

Workshop Background & History

From August 15 to 17, 2022, the Pacific Basin Telehealth Resource Center (PBTRC) facilitated its second U.S. Affiliated Pacific Island Countries & Territories (USAPICT) Telehealth Workshop at the University of Hawai'i (UH) at Mānoa in Honolulu, Hawai'i. The workshop was funded in part by the grants GA5RH37468 and 1 U1UTH42529-01-00 from the Office for the Advancement of Telehealth, Health Resources and Services Administration (HRSA).

The inaugural PBTRC USAPICT Telehealth Workshop in 2016 focused on engaging stakeholders from the USAPICT to take the lead as telehealth champions and forge the way. Six years later, new and returning participants convened once again to reconnect, reset, re-engage, and renew their jurisdictional and regional vision for telehealth.

Participants

The workshop gathered a diverse group of health administrators, health care providers, and health information technology specialists. A total of twenty-two individuals represented:

- American Samoa;
- Commonwealth of the Northern Mariana Islands (CNMI);
- Federated States of Micronesia (FSM);
  - Chuuk
  - Kosrae
  - Pohnpei
- Guam; and
- Republic of Palau.

The following USAPICTs were invited but were unable to participate due to COVID-19 border restrictions: Yap, the Federated States of Micronesia, and the Republic of the Marshall Islands.

Also in attendance were key stakeholders and partners in telehealth that contributed to the workshop planning and presentations. These individuals represented organizations on-island and abroad, including:

- Australian & New Zealand Gastroenterology International Training Association (ANZGITA);
- Mend;
- mTelehealth;
- Pacific Basin Area Health Education Center (AHEC);
- Pacific Islands Primary Care Association (PIPCA);
- Shriners Children's Hawaii;
- Telecommunications and Social Informatics Program (TASI);
- Tripler Army Medical Center (TAMC);
- UH Cancer Center;
- UH Center for Indigenous Innovation and Health Equity;
- UH John A Burns School of Medicine (JABSOM);
- UH Translational Health Science Simulation Center (THSSC), Nancy Atmospera-Walch School of Nursing (NAWSON);
- UH Office of Strategic Health Initiatives;
- University of Indiana;
- U.S. Department of Health and Human Services;
- Veterans Affairs (VA) Pacific Islands Health Care System; and
- Waianae Coast Comprehensive Health Center (WCCHC).

Objectives

The primary objectives of the workshop were to:

- bring together a core group of stakeholders from the USAPICT to review existing telehealth services, care systems and delivery infrastructures, and
- discuss ways in which their needs could be addressed with telehealth solutions.

Additionally, participants collaboratively developed strategies to enhance healthcare services through telehealth within their islands and communities. The intent of this workshop was to share information, identify resources and activities that promote telehealth services in the Pacific Region, learn how to implement telehealth services in island settings, and continue to engage with telehealth stakeholders and champions in the USAPICT.

Island Overview

Representatives from the Pacific Islands presented on the current healthcare environment of their jurisdictions by providing a high-level overview of key areas, such as utilization of telecommunications and telehealth, referral patterns, and veterans programs (Appendix 4). The workshop provided multiple opportunities for inter- and intra-jurisdictional discussions on important issues relating to healthcare delivery, health equity, and health care access. In the jurisdictional briefings, participants spoke of shared experiences, from navigating through their own telehealth and telecommunications roadblocks to finding work-around solutions that best fit their interests. The prominent themes to emerge from this session included:

- **Gradual scale up of telecommunications capacity.** Telecommunications capacity has improved in many island countries and territories, some significantly more than others.
- **Health information technology (HIT) and electronic health records (EHR).** While jurisdictions have been able to utilize telecommunications for applications such as electronic health records, the disparity of equitable access still exists.
- **Need for leadership support.** Support from leadership is essential for key decision-making on the course of telehealth efforts.
- **Workforce gaps.** One of the major barriers to telehealth is the system-wide shortage of trained staff to implement the programs.
- **Specialty care gaps and referral patterns.** As a result of the lack of specialty care on island, jurisdictions heavily rely on referrals to other on-island facilities (mainly in Guam) and off-island facilities overseas often leading to high expenditures.
- **Policy wayfinding and licensing.** Jurisdictions are advised to look into their country and territory policies and procedures as the policies surrounding telehealth and telemedicine may differ.
- **Funding.** Sparse opportunities for funding create roadblocks to the advancement of telehealth and other areas.
- **Limited veterans support.** Veterans residing in the USAPICT often encounter limited services in specialty care and may sometimes have to enter the system as a civilian if their cases are deemed ineligible as a VA referral.
- **COVID-19 pandemic considerations.** Despite the setbacks caused by the COVID-19 pandemic, some jurisdictions have found ways to work around them.
- **Best practices.** Ample distance learning opportunities enable providers to fulfill their own continuing education needs.

Workshop Overview

Each day of the workshop provided opportunities to learn, engage, reflect, and participate. Workshop sessions were primarily focused on providing jurisdictions with an overview of the capabilities of telehealth and the conversations surrounding the provision of telehealth services. The key highlights of each day of the workshop is provided below.

Day 1

- Participants had a chance to hear a couple of the region's own telehealth success stories and experiences, including the Guam Memorial Hospital Authority's (GMHA) telemedicine program, and Kosrae Community Health Center's experience using the Swinfen Humanitarian Telemedicine Network, a free international "global e-referral" network.
- One of Hawai'i's Federally Qualified Health Centers (FQHCs), WCCHC, had promoted telehealth in underserved communities during the early months of the pandemic. WCCHC invited their telehealth platform provider, Mend, to showcase the technologies used at WCCHC to support telehealth.

Day 2

- Participants had an opportunity to "ask an expert" about anything related to telehealth - infrastructure, technology, reimbursements, etc. The Subject Matter Experts (SMEs) included Ms. Chrissy Kuahine from WCCHC, Ms. Paula Manzon from GMHA, Ms. Sylvia Mann from PBTRC/Hawai'i Department of Health, Dr. Toby Maurer from Indiana University School of Medicine, Ms. Susan Yamamoto from Shriners Children's Hospital, Dr. Kelley Withy from UH AHEC, Dr. Jennifer Mbuthia from UH JABSOM/PBTRC, and Dr. Norman Okamura and Dr. Christina Higa from UH TASI/PBTRC.
- In her session, *Global Health: Successful Telehealth Service Models for Remote, Rural and Limited Resource Areas*, Dr. Toby Maurer presented on how a teledermatology system increases access for patients, decreases patient wait time, and provides high standard dermatology care.
- In the hands-on portion of the workshop, participants relocated to the UH Translational Health Science Simulation Center (THSSC), Nancy Atmospera-Walch School of Nursing (NAWSON) to take part in the live demonstrations of telehealth tools and equipment offered, and observe a mock tele-ICU appointment and step-by-step tutorial of a telederm referral.

Day 3

- Participants had an opportunity to discuss telehealth policies and the need to develop such policies in their respective islands. The discussion provided insight and experience from Hawai'i and the U.S. and prompted questions and discussions on how to improve available policies to fit the needs of the island jurisdictions.
- Three providers, Dr. Kelley Withy from UH AHEC, Dr. Neal Palafox from UH JABSOM, and Dr. Chris Hair from ANZGITA, presented on the benefits of distance learning programs as a solution to building capacity for providers in low resource areas, and to providing real-world learning opportunities for providers in training.
- Ms. Omayra Brabham from the VA Pacific Islands Health Care System provided updates and information about the VA's latest efforts with supporting the veteran population in the Pacific Region. During this session, participants had a chance to ask specific questions related to obtaining services, and voice out the issues they face in their islands.

- Dr. Nathan Jordan from Tripler Army Medical Center (TAMC) shared information about a recent initiative to support telehealth in the Pacific. Participants were given a sneak peak into a new and developing program consisting of a "menu" for in person procedures, training, and telehealth services available to the Pacific Region through the support of TAMC.

The Way Forward

- The 2022 USAPICT Telehealth Workshop wrapped up on the third day with a jurisdictional goal-setting exercise that reconvened participants into their jurisdictional groupings to turn their ideas and wish lists into manageable short (3 months), medium (6 months), and long term (1-2 years) goals and action plans. Some jurisdictional key priorities were on the administrative level, involving cross-Pacific partnerships and leadership level buy-in. Other key priorities were more technical and sought to train the workforce in providing telehealth and perform needs assessments.
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- As the facilitators of the USAPICT Telehealth Workshops and as health care advocates, the PBTRC pledges to continue to support the jurisdictions in accomplishing their telehealth goals and remains a committed partner in the pursuit of health equity through telehealth.

Workshop Summary

Background

Representatives from the USAPICT were invited to participate in the second Telehealth Workshop, which took place from August 15th to 17th, 2022. The 3-day workshop was conceptualized and facilitated by the PBTRC. This workshop was held at the University of Hawai'i at Mānoa Campus Center Executive Dining Room, Honolulu, Hawai'i. Representatives from American Samoa, CNMI, Guam, Chuuk, Pohnpei, Kosrae, Yap, Marshall Islands, and Palau were invited to attend. A number of representatives from the Pacific Islands were unable to attend due to COVID-19 travel restrictions. There were twenty-two individuals from the USAPICT, and a total of sixty-one invited guests, presenters, subject matter experts, and other guests (Appendix 2).

When the inaugural Telehealth Workshop took place in September 2016, the theme of the workshop was to build telehealth champions in the USAPICT. Shortly after the workshop, many representatives returned home and immediately started work on local projects to move telehealth forward. The COVID-19 global pandemic hit in 2020 and introduced new challenges for the telehealth sector. Inspired by the 2016 workshop, the 2022 USAPICT Telehealth Workshop carries the torch of gathering representatives to rekindle and form new relationships while exchanging ideas of innovation, organization, collaboration, and implementation.

Workshop Goal

The primary goal of this workshop was to bring together a core group of stakeholders from the USAPICT to review their existing telehealth services, care systems, and delivery infrastructures while discussing the ways in which their needs could be addressed with telehealth solutions. Each day of the workshop provided opportunities to learn from subject matter experts, and think through strategies to overcome the challenges.

This workshop covered six key topic areas, which included:

- Introduction to telehealth, including overviews of existing programs, lessons learned, and best practices;
- Presentations on the health care landscape, needs and challenges, telehealth initiatives, and other priorities to effectively use telehealth in each jurisdiction;
- Synergies among Pacific basin support networks and mechanisms;
- Novel tools and infrastructure to support expansion of telehealth;
- Environment for e-learning and e-consultations and the role of interest groups to support such efforts; and
- Goal setting to prioritize activities, needs, and next steps forward.

Opening Remarks

Day one of the workshop started with an opening prayer from Dr. Akapusi Ledua, Chief Medical Officer from American Samoa Lyndon B. Johnson (LBJ) Tropical Medical Center. The Dean of the University of Hawai'i, College of Social Sciences, Dr. Denise Konan, followed with a welcome message of allyship and forming partnerships in an effort to develop and grow telehealth in the Pacific region. She offered her expertise and experience through her role as one of the Economic Reform Group advisors to the President of the Republic of Palau in solidarity of the collective spirit to face common challenges.

> "Coming together and sharing experiences and stories is so important to being able to thrive in the work that you are doing. I am grateful that we can offer a time and place for you to come together like this."
> - Dean Konan

Acting Regional Director and Executive Officer for the U.S. Department of Health and Human Services (HHS) Region IX, Director Bonnie Preston, provided additional welcome remarks that highlighted the importance of champions piecing together the telehealth puzzle. As an advocate for Region IX, which includes Hawai'i, Guam, Commonwealth of the Northern Mariana Islands, American Samoa, Republic of the Marshall Islands, Palau, and Federated States of Micronesia, Director Preston's message was consistent with the goal of the workshop to provide support of increased capacity for telehealth in these jurisdictions. She emphasized that HHS supports the plans and ideas of the jurisdictions and works to help fill the resource needs.

Dr. Christina Higa, Co-Director of PBTRC and Associate Director of UH TASI, credits Director Preston for assisting with the conceptualization and support of the 2016 USAPICT Telehealth workshop.

In her opening remarks, Dr. Higa, Co-Director of the PBTRC, underscored the value of collaboration and presented the audience with a charge to engage, discuss, and build off of the progress from the 2016 workshop and focus on tangible plans for implementation.

> "It's so many pieces that have to be brought together, it's really those areas that have real champions that can get the resources and put the pieces together to really deliver on the promise of telehealth."
> - Director Preston

Dr. Norman Okamura, Director of UH TASI and Principal Investigator of PBTRC, closed the welcome messages segment with insights on the historical context of telecommunications in the region, dating back to the 1990s and earlier through the first satellite communications network that supported voice communications that facilitated medical transport for emergencies all over the Pacific. He acknowledged American Samoa as a leader in telecommunications for their role as the first U.S. territory to have had fiber laid throughout the island and the first to put in digital phone switches in the whole region. Although progress to address digital inequity is evident, Dr. Okamura advised everyone to continue on with the long march ahead.

Jurisdictional Briefings

Each island jurisdiction presented their country and territory reports on Day 1 of the workshop. The powerpoint presentations, which may be found in Appendix 4, covered general overviews of general demographics; health care needs and health system environment, telecommunications infrastructure, capacity, and cost; telehealth, referral, and veterans programs; and challenges and priorities. A full table of jurisdictional reports is provided in Appendix 5. These briefings were presented by the following representatives:

Mr. Cid Mostales
Guam DPHSS

Dr. Elizabeth Herene Lauvao
American Samoa CHC

Ms. Halina Palacios
CHCC

Ms. Belen Busby
CHCC

Mr. Vincent T. Castro
Kagman CHC

Dr. Tholman Alik
FSM Kosrae CHC

Mr. Atson Nakayama
FSM Chuuk CHC

Dr. Myra Adelbai-Fraser
Palau Ministry of Health & Human Services

Some representatives admitted that since the last telehealth workshop in 2016, providers were practicing telehealth in unconventional ways. The local lockdowns, extra precautions, and border closures that resulted from the COVID-19 pandemic brought about a host of new challenges for health care providers and pushed everyone to think outside the box for quick solutions.

Across the board, jurisdictions made reference to a strong interest in expanding telehealth and gradual steps toward achieving this reality. Some of the more prominent themes to emerge from these presentations exemplified the limitations of available resources and resourceful stopgap measures:

- **Small populations and scattered geographic dispersion:** Census reports between 2010 and 2021 of the jurisdictions consistently illustrate a picture of remote and scattered islands and atolls with small populations. Although some island countries like Chuuk are made up of as many as 290 islands, only a small number of those islands are actually inhabited. Wide dispersion of populations across islands have made it challenging for health care teams to reach some of the more remote areas and, conversely, for residents to access timely health care. In an example, residents in Chuuk have to travel 1.5 days by commercial ship to reach some of the most remote islands. This has been especially challenging for dispensary clinics to regularly resupply medication. For these reasons, Chuuk has started the process of establishing a remote telehealth clinic to bridge the gap.

- **Gradual scale up of telecommunications capacity:** Telecommunications access in the public health centers and hospitals are available through DSL, fiber networks, and, for some island countries, satellites. Systems supported by telecommunications include training, telemedicine, and e-consultations via video conferencing. While the telecommunications infrastructure has been reliable for most of the island countries and territories, there are still some areas within the Pacific region where bandwidth is limited and connectivity is sometimes dependent on the weather.

> "Our bandwidth is the smallest bandwidth among all those that have presented here. It's only 10 [megabytes]. So it is very challenging when we are having a zoom conference here with the doctors and we're trying to do telehealth."
> - Mr. Atson Nakayama, Chuuk CHC

- **Health information technology (HIT) and electronic health records (EHR):** Many island countries and territories have seen the benefits of adopting an electronic health records (EHR) system and some are in the process of procuring an EHR platform of their own. Interoperability of an EHR with telehealth platforms was among the features highlighted during the Mend presentation, the patient engagement platform sponsor, that participants took away and added to their list of features to consider.

- **Need for leadership support:** American Samoa immediately recognized the lack of leadership support as a key challenge in supporting telehealth services. Participants shared that support for telehealth/telemedicine is low because it is not widely acknowledged as a priority item. Some participants commented that jurisdictions should encourage their leaders to attend future workshops so that they may learn from others the benefits and challenges of telehealth and be present at the table for discussions on how to best to increase capacity. For jurisdictions like Guam, garnering support has been especially difficult without a Medical Director or Chief Executive Officer at the Department of Public Health and Social Services (DPHSS)-Bureau of Primary Care Services (BPCS) to guide the decision-making efforts.

> "I cannot stress enough the support of executive management. When they support your ideas and become support instead of roadblocks, it grows to things like this."
> -Paula Manzon, GMHA

- **Workforce Gaps:** Jurisdictions repeatedly reported on workforce and staffing challenges, which included shortage of trained personnel, high unemployment rates, and unsustainable staffing practices. In some cases, provider-level staffing challenges became the bottleneck for implementing telemedicine. For facilities like American Samoa's Department of Health, telehealth equipment acquired from previous grants have not been utilized for their intended purpose of making referrals and discussing patient cases because of the shortage in trained personnel.

- **Specialty Care Gaps and Referral Patterns:** When it comes to specialty care, many of the jurisdictions lack the appropriate providers, expertise, equipment, and machinery, resulting in high volumes of on-island and off-island referrals to hospitals in Guam, Hawai'i, the mainland U.S., the Philippines, and Taiwan. Referred cases range from cancer staging and chemotherapy to orthopedic reductions and cataract surgeries. The specialties and areas with the greatest need are:

    - Cardiology;
    - Dermatology;
    - Diagnostics (e.g., x-ray, ultrasound, MRI, CT);
    - Endocrinology;
    - Neurology;
    - Nephrology;
    - Obstetrics/Gynecology
    - Oncology;
    - Ophthalmology;
    - Orthopedic;
    - Otolaryngology;
    - Rheumatology; and
    - Urology.

  As many as 700 patients annually are referred from DPHSS-BPCS to Guam Memorial Hospital Authority (GMHA), Guam Regional Medical City (GRMC), and off-island. Across all jurisdictions, the specialty with the highest need for referrals is cardiology.

Jurisdictions have already turned to telehealth to fill their needs and have taken steps toward securing partnerships abroad for specialty care services. In Chuuk, the Chuuk Community Health Center is in the process of establishing a link with Shriners Children's for orthopedics using the ViTel platform. Similarly in Palau, their need for specialized, complex care has brought them to work together with Japan on a TeleICU project. To fill in the lack of radiology service in CNMI, the community health centers utilize medical imaging solutions like RamSoft for teleradiology interpretations.

The cost of referrals range from the hundreds of thousands ($360K in Kosrae and approximately $600K in Palau) to the millions (approximately $5.3M in CNMI) annually. For many, the long-term goal is to build up their own local workforce capacity to decrease reliance, and expenditures, on referrals.

"As an overall goal, we want to eventually minimize or reduce the numbers of patient referrals by developing local capacity for these treatments."
-Dr. Myra Adelbai-Fraser, Palau MHHS

- **Policy wayfinding and licensing:** Licensing, credentialing, telehealth legislation, and policies and procedures were among the topics discussed. To address some specialty shortage issues, Guam, Kosrae, and American Samoa developed formal relationships with specialty care entities from Hawai'i and the U.S. mainland. The procedural and credentialing requirements of all involved jurisdictions and healthcare organizations must be understood, followed, and met when implementing e-consultation services for the facilitation of health care services that are otherwise not available locally. Policies may differ across practices and jurisdictions.

- **Funding:** Upstream to many jurisdictional issues around adequate space and facilities, EHR services, equipment and peripherals, and workforce infrastructure is lack of funding. Budget constraints have made it problematic not just for the expansion of telehealth and telecommunications, but also for the general forward movement of entire island countries and territories. In Guam, systemic budget issues from lack of local funding since 2021 continue to be a barrier to progress in 2022.

"Funding is always something that is a struggle not just in telehealth but in the overall workforce."
- Ms. Halina Palacios, CHCC

- **Limited Veterans support:** The reported veteran population in the island countries and territories represented at the workshop varied between 40-20,000 registered individuals, with the least number of veterans registered in Kosrae and the most in Guam. Specific veterans specialty care needs included: cardiology; dermatology; endocrinology; orthopedics; otolaryngology; podiatry; psychiatry; radiology; and rheumatology. Obtaining treatment through referral services has been especially difficult for the veteran population in American Samoa as the VA maintains specific criteria for off-island referrals. Veterans that do not meet the criteria must then go through the general public system at the Lyndon B. Johnson Tropical Medical Center, prolonging their referral determination process.

Overall programming for veterans in the USAPICT has been limited and a challenge in itself. In the CNMI, the Vbox was implemented to bring mental health services specifically to the veteran population. However, the demands to provide the service to patients in the public school system pushed the only three mental health providers on island to expand their coverage in order to address the urgent needs.

- **COVID-19 Pandemic Considerations:** It is undeniable that the COVID-19 pandemic brought on unprecedented challenges worldwide. Guidelines that strongly recommended social distancing, increased caution with face-to-face interactions, and upkeep of good hand hygiene and face masking sought to contain the spread of the virus, but also inadvertently limited the accessibility of traditional in-person health care services. Health providers turned to telehealth to bridge the widening service gap during this time, some more successfully than others.

  In American Samoa, a chronic kidney disease clinic run by a nurse practitioner and a post-operative orthopedic physical therapy service for elderly patients were two of the telehealth programs that had come out of the pandemic.

  In CNMI, telepharmacy services to and from Rota and Tinian, and the main campus in Saipan was still in its infancy pre-pandemic. Infrastructure for this service improved during the pandemic when telecommunications upgraded to fiber optic. On the receiving end of the health care service, the learning curve of utilizing technology for telehealth visits was a steep one for many of the elderly and they often relied on their grandchildren for assistance. As a result of some of these challenges, Kagman Community Health Center providers saw only 15% of their total patient population via telemedicine.

> "COVID-19 has taught us a lot of lessons. It has brought us a lot of bad things, but it has also brought a lot of good things. Telecommunications and telehealth has been one of the good things that might have been brought up and highlighted as the key to development of healthier delivery services."
> - Dr. Myra Akapusi Ledua, Palau MHHS

- **Best Practices:** For some health care providers, telecommunications has also served as a conduit for their own professional growth. Palau providers have taken advantage of several distance learning opportunities, including ones from the Australian and New Zealand Gastroenterology International Training Association (ANZGITA), Project Extension for Community Healthcare Outcomes (ECHO), International Society for Quality in Health Care External Evaluation Association (IEEA), trainings from the Centers for Disease Control and Prevention (CDC), and other opportunities for Continuing Medical Education (CME). One physician expressed interest in more policy-related best practices in licensure regulation and establishing telehealth fee schedules.

"We heavily utilize distance learning because we want to keep up-to-date with current evidence based guidelines."
- Dr. Myra Adelbai-Fraser, Palau MHHS

Specialty care gaps, high off-island medical referrals, limited availability of services for veterans, inadequate funding, and policy infrastructure were some of the issues and topic areas from the 2016 telehealth workshop that remain relevant today.

05 Jurisdictional Needs, Challenges & Goals

Common Needs

Throughout the workshop, several jurisdictions had agreed upon common needs that they have in regards to telehealth. Palau, American Samoa, and Kosrae expressed the need for a greater presence of specialty providers within their islands. CNMI and Kosrae both indicated the need to learn more about policies and laws to implement telehealth. Guam and Palau expressed the need to learn more about integrating Artificial Intelligence (AI), telehealth kiosks, and public wireless availability.

Common Challenges

Just as the jurisdictions had similar needs, they also identified common challenges regarding the implementation of telehealth. Guam, Palau, and American Samoa voiced that one of their main challenges would be leadership, provider, and user buy-ins. American Samoa, CNMI and Palau stated that there are challenges regarding policy and procedures. Kosrae, Guam, and American Samoa expressed that they had challenges in regards to technical expertise and personnel as well as training staff in using telehealth as a means of delivering care to their jurisdictions.

Jurisdictional Properties (Table 1.)

After completing the breakout session of assessing needs and challenges on Day 1 of the workshop, the jurisdictions were asked to prioritize them on Day 2.

Guam	American Samoa	CNMI	FSM	Palau
• Staffing • Funding • IT Support and Infrastructure • Billing and Registration • Provider, Leadership, and User Buy-In	• LBJ and CHC Partnership and Collaboration • Leadership Buy-In • Financing • Technical Expertise and Personnel • Policy and Procedures	• Policy • Cultural Acceptance • Provider Champion • Provider Buy-In • EHR Compatibility	• Capacity and Training • Telehealth Access and Equity • Broadband Cost • Infrastructure Equipment • Sustainability	• Standard Telehealth Policy • Designated Telehealth Coordinator • Technology Infrastructure • Telemedicine Buy-In • Training and Training Program • Specialty Care Services

Telehealth Short, Medium & Long Term Goals (Table 2.)

On day 3, the final day of the workshop, participants once again gathered to reflect on their priorities and organize their major takeaways from the sessions into tangible goals for change and improvement in their respective jurisdictions. Short term goals were defined as goals that will be achieved in the following three months following the workshop, medium term in six months, and long term in one to two years. The PBTRC has agreed to coordinate "virtual check-ins" with the island countries and territories to track each jurisdiction's progress towards their goals and refine goals if necessary (e.g., FSM would like to work on individual State FSM goals respectively)..

	Short-Term Goals	Medium-Term Goals	Long-Term Goals
Guam	• Make visit to GMHA to review logistics of telemed services • Update and review telehealth policies • Meet with Innovator Health to discuss possible services they can provide	• Budgeting to eventually purchase telehealth technology/ equipment • Clarify fiscal responsibility • Connect Northern and Southern Clinics to fill provider gaps	• Become returning members of workshop
American Samoa	• Form committee specifically to address telehealth needs and development • Strengthen communication between LBJ and DOH, schedule regular meetings	• Launch Telederm in December • Open the floor to discussion of reimbursement regarding telehealth services • Training (supplemental or otherwise) for physicians, staff, IT	• Come up with comprehensive plan that has territory wide reach for all stakeholders

	Short-Term Goals	Medium-Term Goals	Long-Term Goals
CNMI	• Creation of group dedicated to policy writing • Spread awareness through more engaging methods • Take inventory of patient's feelings towards telehealth and the technologies that are being utilized		• Have Vincent take lead on statewide plan • Have collaborative working group involving health plan, physicians, etc.
FSM	• Secure funding • Look for addition external funding • By end of November, have collaborative plan in place with other hospitals	• Technical assistance and expertise • Policy writing • Purchase equipment	• Effectively utilize newly built clinic
Palau	• Review and disseminate/ share telehealth • Review existing clinical policies to include telehealth (ex. licensure, registration, • etc.) • Have providers, leaders, and stakeholders confer	• Hire a dedicated telehealth coordinator (to help organize) • Develop telehealth training program (staff, patients) • Designate a private area for teleconsultations/telehealth services	• Initiate telemedicine service for specialties in high demand • Continuous participation in the Pacific Basin Telehealth Workshop • Will have continuous flow with the short and medium term goals, specifically for developing a telehealth training program for staff and patients • Finding and sustaining funding for equipment for peripherals

Addressing Needs, Challenges & Solutions with Subject Matter Experts

After discussing the jurisdictional priorities, a panel of subject matter experts were asked to address the questions and concerns participants had after hearing the discussions and presentations of the workshop. The experts were:

- Ms. Chrissy Kuahine, Director of Clinical & Patient Informatics at Waianae Coast Comprehensive Health Center;
- Ms. Paula Manzon, Chief Clinical Informatics Officer at GMHA;
- Ms. Sylvia Mann, Co-Director of PBTRC;
- Dr. Toby Maurer, Dermatologist;
- Ms. Susan Yamamoto, Telehealth Director at Shriners Children's Hawai'i;
- Dr. Kelley Withy, Director of AHEC;
- Dr. Jennifer Mbuthia, Physician at JABSOM;
- Dr. Norman Okamura, Director of TASI and Principal Investigator of PBTRC; and
- Dr. Christina Higa, Co-Director of PBTRC and Associate Director of TASI.

Most of the questions revolved around how the jurisdictions would initiate implementation of telehealth in their island regions. Some participants asked about what preferences these experts had on telehealth technologies that some panelists had presented on in earlier sessions so that they could purchase it for their own jurisdictions. Others asked about the organizational structure of telehealth and whether it would be better to develop a stand alone unit or integrate telehealth throughout their current systems.

"Telehealth is just one more tool that our providers have [to help] take care of our patients" - Ms. Chrissy Kuahine, WCCHC

The Questions and Answers (Q&A) presented on the subsequent pages were addressed by the subject matter experts. Participants asked questions regarding the initial implementation of telehealth, integration of telehealth into an organizational structure, and challenges with exchange of data in current systems. The SMEs drew from their years of experience in telecommunications, telehealth, healthcare, and administration to provide responses to questions and encouraged the jurisdictions to implement and utilize telehealth to deliver health care to their own communities.

Q&A 1

Ms. Kuahine: Have a telehealth coordinator, project manager, someone who's going to take the lead and be the contact person. You should also have buy-in and provider champion to avoid mixed messages. Make sure everyone is on the same page.

Ms.Yamamoto: See one, do one, teach one. It's important to take that first step.

Dr. Higa: How do we start to implement telehealth?

Dr. Maurer: You can't deliver tools until there is a champion or leadership that pushes initiatives (contracts, IT, tool company relations). You have to build the relationship and connection. Shared resources between the jurisdictions to figure out how important to share contracting, block grant, servers, knowledge, training, etc.

Dr. Okamura: I encourage everyone to work with each other. Look around your communities, territories and country and see where your partners are. The biggest worry personally is within watching a territory, a set of healthcare providers moving off in one direction (implementing an EHR) while the hospital goes off on its own. This is just one example, and it is impossible. Telehealth as a means of delivering direct clinical care still needs information to be transmitted and shared across agencies. If those portions of the infrastructure don't also exist, it's terrible.

Ms. Manzon: Especially in hospitals, it's hard to onboard when not everyone knows what's going on. You have to get HR to understand and encourage them to do their research. In regards to putting up a department, then yes, to define the tasks that the teams have to do and build upper leadership.

Ms. Yamamoto: Yes, you have to socialize telehealth and talk about it at every level so that it becomes part of what's accepted. For policies, keep it very general and then let the policies inform your procedures. Telehealth is one more tool that our providers have to take care of our patients. It's integrated into what we do now.

Dr. Ledua: Assuming that you have the organizational structure, when you try to tailor something to be suitable to your local settings in terms of integration considering all the challenges. From your perspective, you think it would be more effective to have in the organizational structure, just a unit of telehealth? Or is it better integrated in current systems?

Ms. Kuahine: At our community health center, it is integrated. What we are finding is that we could use it from a provider and recruiting, retaining providers mechanism. Providers who were reluctant about telehealth find that working two days from home and seeing patients remotely, we still have our kiosks and exam rooms. There is a lot of potential for both models.

Dr. Higa: A major use of telehealth for the islands is to get specialized care. Is there an opportunity to build a network of telehealth specialists to serve the jurisdictions? If we work together in a coordinated way, can we leverage the resources of a network? We can build an integrated network of telehealth providers who know your health care needs, whether provider to provider consults or direct care.

Ms. Kuahine: There are pros and cons. We do use NextGen EHR, and when we went through the RFP process for the televideo platform in 2019. NextGen was working on integration with OTTO at the time. We ended up selecting the Mend video platform. Would we go with OTTO now? I don't know. As for function, the fact that you can click from within your EHR and have the video opened up is beneficial. I will say that the reason why we went with Mend was because it integrated with our EHR appointment system and we wanted someone to provide live support, in real time. Providers need help now, not tomorrow. Having support live is very important, along with a vendor who is engaged and responsive. I always like to look at support, sales and the vendor level. You have to look at your overall need.

Dr. Naveno: What is your opinion on purchasing built-in modules of telemedicine as opposed to a standalone module?

Dr. Maurer: All these EMR's have pros and cons. Epic is great for prescribing, ECW (eClinicalWorks) is easier to use and seems to want more integration. NextGen is the "clunkiest" of the EMRs and is not very strong at integration. We encourage attending connect-a-thons where different vendors see in person how they connect their EMRs, connect to the endpoint.

Mr. Morales: The problems we're experiencing is that we don't have health information exchange (HIE) and that is an important component for Guam to have in order to exchange data with any military. Military will not exchange data with you directly, to your clinic. It has to go through your HIE. Without a HIE functioning, there is no way to connect to military hospitals or clinics going through an exchange rate.

Dr. Okamura: Cid, could you briefly describe the recent challenges that you are beginning to face with exchange of data between the EMRs and Guam's naval hospitals and facilities?

Ms. Manzon: I have an EMR and there is no choice but to use any other one. When in that situation, you have to find a vendor. For us, it was InnovatorHealth, they had the equipment and people that supported us who are willing to learn that particular EMR. Together, when we do that service, we work together to get that physician the help they need altogether.

Dr. Okamura: Even with small populations throughout the Pacific for VA and DoD, and if you want them to be a part of your planning process, you need to be aware of this issue. There's only one way to interface and that's through the E-health Exchange where the VA and DoD have a single interface for health information exchange. I leave these thoughts with you because these are very critical.

Regional Programs that Leverage Telehealth

Presenters from GMHA, Kosrae Community Health Center, and Shriners Children's Hospital were invited to share some of their success stories and updates from the Pacific. Pacific Basin Telehealth Resource Center Co-Director and Hawai'i State Department of Health State Genetics Coordinator, Ms. Sylvia Mann, opened the session with her experiences with establishing genetic services to families in the region since 2014. At first, Ms. Mann utilized Zoom to engage with families in the region who needed genetic services. Later, she went on to develop training programs with Dr. Higa for genetic providers both in state and out of state. The emergence of COVID-19 pushed Ms. Mann and her team to divert their attention to providing best practices for providers through animated training videos and infographics. To expand accessibility of the training videos, Ms. Mann and her team are trans-converting the training videos into several languages.

- **Guam Memorial Hospital Authority:** Ms. Paula Manzon, R.N. serves as the Chief Clinical Informatics Supervisor at GMHA. This year, Ms. Manzon and her team were presented with the Patient Safety Award for Innovation for their work in implementing a department-wide telemedicine project which was initiated at the onset of the COVID-19 pandemic in 2020. In her presentation, Ms. Manzon touched on the three key themes: innovation, pivoting roles, and patient champions.

- ***Innovation:*** The telemedicine program had humble beginnings in the intensive care unit with just one critical care pulmonologist and a makeshift patient rounding contraption using an iPad, IV pole, and computer chair base with donated clamps and a bluetooth speaker, a significant difference from the current patient rounder cart they currently utilize.

- ***Pivoting Roles:*** Ms. Manzon introduced a new role called tele-technician, or tele-tech, to assist with patient assessments and patient rounding with the rounder. Quick staffing of these roles was made possible by pivoting the roles of pre-medical students as COVID-19 testers and data analysts to teletechs. Ms. Manzon is already using parts of the tele-tech model and applying them to different departments outside the intensive care unit. As a next step for the tele-tech program, the telemedicine program is in the process of developing a partnership with the New York Institute of Technology where physician residents would travel to Guam for Tropical Medicine clinicals.

"Having students as tele-techs turned out so great. It was cost effective and there were many of them at that time coming back from school."
- Ms. Paula Manzon, GMHA

- ***Provider Champions:*** The collective work of several provider champions supported the implementation and growth of the telemedicine program at GMHA. On the level of executive management, Dr. Joleen Aguon has been in full support of the telemedicine program from the very beginning and has contributed to the quality of the program with her implementation of the cycle of performance improvement (CoPI). On the administrative level, CEO and founder of Innovator Health, Dr. Darren Sommer, not only works side-by-side with Ms. Manzon to ensure the success of the program, but also on the day-to-day activities with physicians on staff. The most notable patient champion of this telemedicine program is no other than Ms. Paula Manzon herself, who has worked tirelessly to quickly upscale a program from scratch in the midst of a global pandemic.

"The main difference about acquiring telemedicine solutions is that sometimes it is piecemeal. You have to acquire the equipment and staff differently. What we loved about Dr. Sommer [of Innovator Health] was that everything was in a package."
- Ms. Paula Manzon, GMHA

- **Kosrae Community Health Center:** Dr. Tholman Alik, Medical Director of Kosrae CHC, had recently started a membership with the Swinfen Humanitarian Telemedicine Network, which he was introduced to by the PBTRC. Physicians can submit cases on the platform, which are then triaged by nurses that pair cases with specialists from around the world. In his experience with Swinfen, Dr. Alik has been able to seek asynchronous e-consultation from specialists, such as radiology, with a 24-48 hour turnaround time.

- **Shriners Children's Hawai'i:** Ms. Susan Yamamoto is the Telemedicine Coordinator at Shriners Children's Hawai'i, formerly known as Shriners Hospitals for Children. This year marks the centennial for the Shriners organization, and next year will be Shriners Children's Hawaii's centennial. Other changes with the organization include consolidation of hospitals and increasing telehealth services. While the organization still plans to continue their mission of providing orthopedic treatment and care, there will also still be centers for specialty care of spinal cord injuries, burns, and reconstructive surgery including craniofacial and cleft lip and cleft palate. Ms. Yamamoto attributes the strength of the telehealth program at Shriners with its 20-year history of partnering with organizations dedicated to telehealth, beginning with the Pan-Pacific Education

and Communication Experiments by Satellite (PEACESAT), one of the first organizations that used the satellite at the University of Hawai'i. The sustaining growth of the program has been successful thanks to the commitment of medical staff and physician champions, including director Dr. Craig Ono.

- **Waianae Coast Comprehensive Health Center:** Representing WCCHC was Ms. Chrissy Kuahine, Director of Clinical and Patient Informatics; Mr. Rich Bettini, Chief Executive Officer; Dr. Stephen Bradley, Chief Medical Officer; and Ms. Juanita "Aunty Nalani" Beioni, administrator at the Native Hawaiian Healing Center. The WCCHC recently won a Hawai'i-Alaska HIMSS Patient Innovation Award of the Year for their telehealth and informatics activities. During the Talk Story session, the team discussed their experiences with developing telehealth services within their center and their approach to capturing information regarding social determinants of health.

  WCCHC's commitment to telehealth dates back to the early 2000s with the implementation of their first electronic health records (EHR) system, which was purchased without grant money. During the COVID-19 pandemic, they utilized virtual conferencing technologies to up-train the entire WCCHC staff on adopting telehealth. The community *kupuna* (Hawaiian for grandparent or an elderly individual) population also had the opportunity to receive training on basic computer skills in an effort to help them become more comfortable with technology and open to telehealth visits.

  Future iterations of the basic computer skills training program will focus on the English as second language (ESL) kupuna from the USAPICT.

  For nearly three decades, WCCHC has honed in on the areas of need in their service population by codifying all the services provided. Evaluation and management (E/M) codes are established for reporting purposes only and are not used to charge services. With this system, they can capture social determinants of health data and demonstrate the effects, overtime, of particular services such as those offered by the Native Hawaiian Healing Center. This systematic approach of reporting on the health outcomes of a traditional Native Hawaiian practice enables the health center to present the information in a way that can be widely understood through evidence-based data. Additionally, WCCHC, has been able to translate their commitment to the community into a 1.5 million-dollar cost savings through their investment in social support and care coordination as part of a pilot program that is now in its second year.

> "Healthcare is the last bastion of industry that says, 'we call the shots and the patient has to adopt to us.' That's changing very rapidly. We're wanting to give the patient the opportunity to get healthcare, see a provider when and where they need it whether it is face-to-face or telehealth. We want to make it really user friendly and easy for the patient and we will adapt that to that."
> - Dr. Stephen Bradley, WCCHC

Telehealth Practices & Technologies

Hands-On Experience

A burgeoning area of telehealth is the use of remote patient monitoring and other technologies and use of online training modules as a distance learning resource. In the hands-on workshop portion of the Telehealth Workshop, participants were invited to the School of Nursing Translational Health Science Simulation Center (THSSC) in the Nancy Atmospera-Walch School of Nursing (NAWSON) to engage in demonstrations from health care providers and simulation center staff of some of the telehealth technologies used in their field of practice.

The hands-on portion of the telehealth workshop had participants divided into four groups that rounded four different stations (Appendix 5).

- **Telehealth Interprofessional Education (TIPE) Modules and Area Health Education Center (AHEC):** This rotation included two programs. One is the TIPE modules developed in collaboration with PBTRC, NAWSON, and the Western Region Genetics Network. Demonstrations on the usage of the TIPE models were conducted by Dr. Joanne Loos and Ms. Kimm Teruya of NAWSON. The TIPE module series are primarily utilized by students in preparation of their telehealth interprofessional collaborations. The modules emphasize the need for effective communication and team work when providing services in an interdisciplinary team. The other program in this rotation was AHEC, led by Dr. Kelley Withy and supported by Ms. Christina Carter, continues to support increased telehealth accessibility and has indicated plans to support telehealth clinics in the Pacific region and starting a simulation center for allied health training.

- **Tyto Demonstration:** Dr. Lorrie Wong and Dr. Deborah Mattheus of NAWSON presented on Tytocare, which is used for the Hawai'i Keiki project to provide school nursing services in Hawai'i public schools. Tytocare is a remote patient monitoring technology that replicates the doctors' physical exam and enables non-clinicians to partner with clinicians on the other side of the connection to perform the physical exams. Parents have the opportunity to join the medical check-up with the provider and student through the platform. Some of the reported benefits of this technology include: convenience, no long wait time, reduction of absenteeism from school, and no cost to families.

- **Cart Mock-Up:** Dr. Jennifer Mbuthia demonstrated a telehealth cart that was intended to be used in smaller primary care clinics with no tertiary care specialists. The cart includes a laptop and plug and play devices that are connected to the laptop via USB, all on a mobile workstation. The main peripheral device is a Horus HD Digital Scope System which contains a high resolution (1080p) camera with interchangeable heads for various assessments and exams including ears, nose, and throat, dermatology, ophthalmology, audiology, women's health, and general exams. Examinations may be performed in real-time, or asynchronously with store and forward capabilities.

- **Phone Peripherals:** Some of the remote patient monitoring phone peripheral devices

that are being used in the WCCHC setting were demonstrated by Ms. Chrissy Kuanhine and Ms. Sarah Mucha of mTelehealth. The Nonagon device is pairable with smartphones and tablets via bluetooth and allows the clinical and non-clinical user on one end conduct nine examinations that transmits as data and video to a health care provider on the other end of the app software. The Wheezo is a home monitoring asthma management device that allows users to detect wheeze, track air quality live and possible wheeze triggers, and share this detailed history with health care providers.

The hands-on workshop offered participants a chance to test out some of the devices and technologies that have facilitated remote patient care and supported telehealth visits. Many participants felt that 20 minutes at each station was not enough time for them to explore the tech and have requested for an expanded hands-on demonstration in future telehealth workshops.

Telehealth Demonstrations

In the Telehealth Demonstrations session, Ms. Paula Manzon provided a demonstration on Innovator Health Rounder and the eICU platform while Dr. Toby Maurer walked through the technology she utilized for teledermatology.

- **Innovator Health and eICU:** The history and early iteration of the Innovator Health patient rounder at Guam Memorial Hospital Authority was previously presented during the *Regional Programs that Leverage Telehealth* session. During the live demonstration with Dr. Garrett Britton, Ms. Manzon walked through a real-time interaction of a remote physician engaging with the tele-tech team at Guam Memorial ICU that manages the rounder. The rounder is utilized by the tele-techs every morning when the eICU team gathers for their rounds, or when there is a new admission or consult. Connected to the rounder are implements, such as a stethoscope and camera, used for bedside physical exams. Dr. Britton emphasized the value of the patient rounder as a solution to overcome staffing challenges. Now in its second year, the eICU program supports 24/7 provider coverage and larger patient volumes.

> "I don't believe that any other hospital is doing what we are doing. The Department of Defense certainly has a telehealth program, but I don't think that it's quite as integrated in day-to-day operations like it is here at GMH."
> - Dr. Garrett Britton, WCCHC

Teledermatology: For remote dermatology care, Dr. Maurer provided a step-by-step of a telederm visit on the Medweb platform, which enables the electronic acquisition, viewing, publishing, and storage of medical data. On this store and forward platform, a primary care provider may upload images that are then viewable by the dermatologist on the receiving end. The dermatologist's consultation is then transmitted back to the primary care provider through the platform and also into the patient's chart.

> "There are existing standard systems in place for telehealth, telederm and interprofessional consultation, and we do not want duplicative 'niche' systems implemented."
> - Dr. Toby Maurer, University of Indiana

Telehealth Concepts & Policies

08

Review of Telehealth Terms & Concepts

To review key concepts and terms regarding telehealth, Dr. Higa presented on basic telehealth information, including the definition of telehealth, telehealth delivery and models, telehealth applications and models, and telehealth overall infrastructure.

> **Telehealth:** Telehealth is defined as the use of technology for the delivery of clinical health care, education, public health information. Sometimes referred to as telemedicine (clinical subset of telehealth); Virtual Care; Connected Care; eConsults; mHealth; eVisits; virtual visits and other terms.

Telehealth Delivery & Models (Table 3.)

Models	Definition	Example
Store & Forward	"Asynchronous transmission of images, test results or other data"	• Public Island Health Care Project • TAMC
Remote Monitoring	"Real-time transmission of patient physiological or biometric data;" otherwise known as remote patient monitoring (RPM)	• WCCHC - Chronic Disease Management
Live Consultation	"Remote synchronous services provided by live video conferencing"	• Shriners Children's Consultations • Kosrae CHC / JABSOM
Mobile Health	"Communications and data or image transfer via mobile devices"	• VA Tablets for Home Teleconsults

Telehealth Applications & Models (Table 4.)

Clinical	Education	Public Health
• Primary Care Provider - Patient • Specialist - Patient • Health Care Provider - Health Care Provider	• Continuing Professional Development • Health Sciences Education & Training • Provider - Subject Matter Expert (ECHO)	• Prevention • Chronic Disease • Maternal Child Health • Epidemic / Pandemic Preparedness

Telehealth Overall Infrastructure (Table 5.)

Policy Legal Framework	Technology	Human Resources	Sustainability & Funding
• Medical Licensure • Reimbursement & Payment • Malpractice • Credentialing & Licensure	• Reliable, Affordable, Accessible Broadband • Communication Devices in Health centers and Other • Clinical Devices & Storage • Electronic Health Records / Health Information Exchange	• Leadership Vision • Clinical Champions • IT Support • Working Groups / Task Force for Organizing	• Business Models • Government Funding • Reimbursement & Payment Models • Private Public Partnerships

Review of Telehealth Policies

To share Telehealth Policies with the USAPICT Telehealth Workshop participants, Dr. Higa presented on the Hawai'i Revised Statute (HRS) 226, Consolidated Appropriations Act 2021 (CAA), and Center for Medicare and Medicaid Services (CMS) Physician Fee Schedule 2022 (PFS). These policies help shape the telehealth landscape throughout the state of Hawai'i and across the U.S. Although these policies will continue to change, the main objective is to build a pathway toward ensuring access to health care to all and delivering services to vulnerable populations and underserved communities.

HRS 226 (2016): When the national public health emergency (PHE) was declared in March 2020, the nation aggressively responded to COVID-19. Hawai'i was at an advantage because, prior to the PHE, HRS 226 was established in 2016 with specific language relating to telehealth and application to Medicaid and private insurers.

Some key components of this law include:

- Parity for telehealth service and payment in comparison to in person services
- Malpractice coverage for telehealth
- Lifts restrictions on originating site requirements including patient or provider location (i.e., providers can get paid for delivering services to a patient who is in his/her home)
- Broad definition of telehealth including:
  - store/forward
  - remote monitoring
  - live consultation & mHealth

Learn more by reading the full text here.

Consolidated Appropriations Act 2021 (CAA): Under the temporary PHE, permanent waivers are required to serve individuals with mental health disorders. The CAA 2021 enacted telehealth waivers for mental health services under Medicare which include:

- Lifting geographic restrictions – telehealth can be used for diagnosis, treatment or evaluation of mental health disorders

This was made permanent in law via CAA 2021. However, patients must have an in-person relationship with a provider, one in-person visit within 6-months prior to the telehealth consult and a follow-up visit within 12-months The PHE waivers take precedence over the CAA provisions, once the PHE ends these telehealth related laws will go into effect.

Additionally, the CAA 2021 also established a new Rural Emergency Hospital (REH) designation which includes:

- New eligible site designation for Critical Access Hospitals (CAH) or other rural hospitals with fewer than 50 beds
- Emergency / Outpatient Services and a wider diversity of services

Note: REH are eligible originating sites (patients can be there for telehealth services). However, eligible provider and service type according to CMS rules still apply. Additionally, the HRSA definition of "rural" still applies.

Learn more about the Medicare policies by visiting the Center for Connected Health Policy website. Read the summary of the CCA 2021 here.

Center for Medicaid & Medicare Services (CMS) - Physician Fee Schedule 2022 (PFS): The CMS Physician Fee Schedule for calendar year (CY) 2022 presents the latest administrative changes to telehealth policy in the Medicare program. During the COVID-19 public health emergency (PHE), CMS made certain services delivered via telehealth are eligible for reimbursement. The list of services will remain eligible as long as the PHE is in effect. These services, when administered via telehealth, need to pass one of two tests:

- Category 1 – Where the service is essentially similar to a service already on the eligible list.
- Category 2 – If the service is not similar to one already on the eligible list, there is evidence that demonstrates clinical benefit to the patient if it is provided via telehealth.

Additionally, in the PFS 2021, Category 3 was created to be a temporary holding area for some but not all of the services placed on the temporary COVID-19 PHE eligibility services list. Now, the PFS 2022 finalizes details that make Category 3 services eligible for delivery via telehealth and reimbursed until the end of CY 2023. The Category 3 eligible codes include:

- 93797 – Physician or other qualified health care professional services for outpatient cardiac rehabilitation; without continuous ECG monitoring (per session),
- 93798 – Physician or other qualified health care professional services for outpatient cardiac rehabilitation; with continuous ECG monitoring (per session)
- G0422 – Intensive cardiac rehabilitation; with or without continuous ECG monitoring with exercise (per session),
- G0423 – Intensive cardiac rehabilitation; with or without continuous ECG monitoring; without exercise (per session).

Learn more by visiting the Center for Medicaid & Medicare Services (CMS) website or read the fact sheet here.

Policy Discussion

Aside from policies put in place due to COVID-19, deep discussions arose regarding cross-state licensure and provider practicing. Generally, telehealth occurs at the physical location of the patient and requires a provider to have a license to practice in the state where the patient is located. During COVID-19, states created exceptions to the rule but confusion still remains. Representatives from the jurisdictions shared their processes for delivering telehealth services and recognized that each procedure varies. Ms. Paula Manzon commented that the process should first start at the board-member level with members introducing the conditions in their bylaws, then present that to the legislators. To guide the policies put in place relating to telehealth, collaboration is needed between major stakeholders and partners. Leveraging support from all parties involved will benefit the communities who need improved telehealth services and bring health care to all.

"The drive to do the work is change. My part is the receiving end. We all see that when we teach students about new concepts and they take time to understand it. Convince policy makers to see it because once we do, we're on board."
- Dr. Malouamaua Tuiolosega, LBJ

Telehealth Opportunities

09

Distance Learning

Area Health Education Center (AHEC): Dr. Kelley Withy shared about the opportunity for university students to travel abroad to the USAPICT to observe their health care systems and bring back suggestions to improve their services. Additionally, there are AHEC sites located throughout all jurisdictions to assist with policy, legal documentation, credentialing, and equipment. For more information, visit the UH AHEC website.

- **Project Extension for Community Healthcare Outcomes (ECHO):** Project ECHO offers medical education for healthcare professionals, builds primary care capacity, and improves access to specialty health care in rural communities. The model does not provide direct patient care but instead, provides front-line clinicians with the knowledge and support needed to manage patients with complex conditions. ECHO sessions are held throughout the month covering topics like behavioral health, geriatrics, pediatrics and medications for opioid use disorder (MOUD). For more information, visit the Project ECHO website.

- **Simulation Center:** The Hawai'i/Pacific Basin Area Health Education Center is partnering with other Area Health Education Centers throughout the Pacific region to provide allied clinical health training. Students will be able to learn from accredited clinicians through an online classroom platform and rotate through other jurisdictions to train others in the field. The Simulation Center offers access to simple training opportunities that encourages ongoing collaborations and partnerships throughout the jurisdictions.

John A. Burns School of Medicine (JABSOM): Dr. Neal Palafox, Professor in the Population Sciences in the Pacific Program, University of Hawai'i Cancer Center, introduced the *Increasing Receipt of Cancer-Related Services in Vulnerable Indigenous Pacific Populations* project. This project is funded by the Bristol-Myers Squibb Foundation. The goal of the project is to ensure cancer care is provided to priority populations in a timely and sustainable manner including screening, diagnosis, treatment, survivorship, and palliative care with a focus on telehealth. The project focuses on 4 locations – American Samoa, Commonwealth of Northern Mariana Islands (CNMI), Guam, and the Island of Hawai'i (Big Island). In order to strengthen local health systems and health care worker capacity, the project will utilize the following strategies.

- **Strategy 1** – Improve community collaboration around telehealth and cancer control
- **Strategy 2** – Provide cancer-related education and cancer case management
- **Strategy 3** – Train community health workers to improve access to care for their priority populations

Strategy 1: American Samoa, CNMI, and Guam convene bi-monthly with representatives from the health departments, hospitals, community health centers, legislature, and members of the community to strategize ways to strengthen the local health system. In these meetings, policy leaders discuss reimbursement and payment for services, and licensure. Communities have been able to benefit from these discussions, which sometimes translates into new equipment and improved technological capacity.

On the island of Hawai'i (Big Island), the project has helped a disadvantaged population called *nuclear nomads* (individuals exposed to nuclear testing by the U.S. after World War II) with healthcare insurance enrollment and delivery of water, food, and generators. Telehealth outreach to this population was made possible through the work of a Cultural and Health Alliance which gathers Marshallese leaders and Republic of Marshall Islands (RMI) Consul General on the Big Island for their support.

Strategy 2: To provide education and case management via telehealth platforms, the project utilizes the Project ECHO framework. Every third Thursday of the month, a one-hour didactic session is held with case study and discussion. The meetings train health care personnel on prevention, screening, treatment, survivorship, and palliative care. Doctors and nurses earn 1.0 CME credit for participating in the training. Between April 2019 through April 2021, over 400 attendees participated in the training from American Samoa, CNMI, FSM, Guam, Palau, RMI, Hawai'i, and other U.S. states.

Strategy 3: A training program for community health workers started in Guam, CNMI, and American Samoa. Physicians, social workers, cancer program staff, and other community health workers make up the 70-person training program. Marshallese community health workers continue to receive training on the Big Island of Hawai'i with assistance from Ka'u Community Health Association.

The *Increasing Receipt of Cancer-Related Services in Vulnerable Indigenous Pacific Populations* project has faced multiple implementation challenges, including scheduling hardships due to time differences, conflicting priorities, clinician workload, project delays, and broadband limitations in rural communities. Despite these challenges, the project continues to coordinate meetings around participant availability, share Pacific region-specific cancer data to all involved, and convert on-site training to virtual sessions to reach a broader audience. By leveraging stakeholder partnership within these communities and telehealth activities, cancer treatment and care services has multiplied almost ten-fold.

"The need for telehealth is not going to go away so we need to discuss how to strengthen it."
- Dr. Neal Palafox, University of Hawai'i Cancer Center

Australian & New Zealand Gastroenterology International Training Association (ANZGITA): Dr. Chris Hair, Gastroenterologist, member of the Australia & New Zealand Gastroenterology International Training Association (ANZGITA), and chair of the Pacific GUT Club, presented the importance of instant access virtual case discussions. The framework was a product originating from the 2016 USAPICT Telehealth Workshop by Dr. Payne Perman of Pohnpei. In 2019, Dr. Perman performed a gastrointestinal endoscopy on a patient while a panel from ANZGITA offered guidance via teleconference. Since 2016, the Pacific GUT Club has conducted over 40 sessions with gastroenterologist and healthcare professionals from all over the world including Australia, New Zealand, Fiji, and American Samoa.

"I would not have had the confidence to do this by myself and would typically have to refer more complex cases off island; however, with the team of experts I was able to successfully conduct the biopsy and plan for next steps for the patient."
- Dr. Payne Perman, Pohnpei CHC

During the Pacific GUT Club meetings, provider attendees offer guidance and advice for treatment on specific cases presented to the group. Certificates of recognition are given to attendees who participate in the Pacific GUT Club sessions. Due to COVID-19, many healthcare facilities had to close their doors and access to care became difficult. With the use of virtual case discussions, doctors from all over the world have the ability to directly communicate with one another and obtain useful tools to address their patients' needs. To become a member of ANZGITA and join the Pacific GUT Club, visit their website here.

Pacific Island Veterans

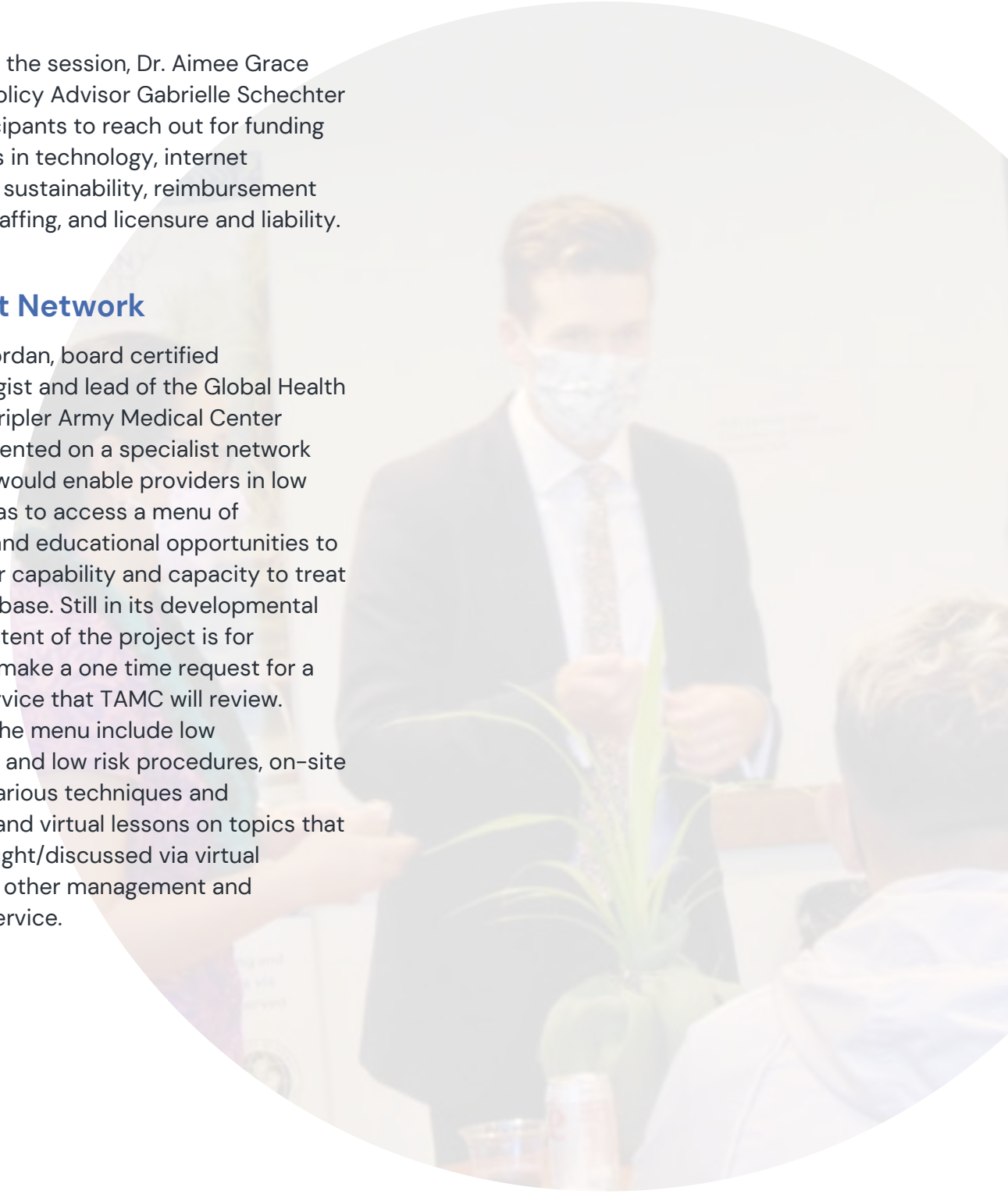
Ms. Omayra Brabham, Associate Chief Nurse for Connected Care under the VA, started this session with a presentation on the current telehealth programs and tools available for veterans residing in Hawai'i and the USAPICT, including synchronous applications such as the Clinical Video Telehealth (CVT) and Video Connect, and asynchronous applications such as the store and forward platforms for teleretinal and telederm screening.

The most developed telehealth program for veterans is the Accessing Telehealth through Local Area Stations or ATLAS. The ATLAS is supported by on-site telehealth clinical technicians (TCTs) that are trained to meet with and guide veterans during their visit and navigate through the telehealth visit. TCTs work alongside a master preceptor to ensure that patient care benchmarks are fulfilled. During an ATLAS appointment, a veteran interfaces with a VA provider over a secure DX80 video conferencing line. With ATLAS sites already in Kauai, Oahu, Maui, Hawai'i island, American Samoa, Guam, and the CNMI, the VA plans to set up three additional ATLAS sites on the islands of Anu'u, Leone, and Amouli in American Samoa. Another synchronous telehealth application that enables veterans to virtually follow-up with their VA healthcare providers is the VA Video Connect (VVC). The VVC has been especially convenient for veterans needing to follow up for their mental health appointments but are unable to travel to their provider.

At the end of the session, Dr. Aimee Grace and Health Policy Advisor Gabrielle Schechter invited participants to reach out for funding opportunities in technology, internet connectivity, sustainability, reimbursement and billing, staffing, and licensure and liability.

Specialist Network

Dr. Nathan Jordan, board certified ophthalmologist and lead of the Global Health Initiative at Tripler Army Medical Center (TAMC), presented on a specialist network project that would enable providers in low resource areas to access a menu of procedures and educational opportunities to increase their capability and capacity to treat their patient base. Still in its developmental stages, the intent of the project is for providers to make a one time request for a particular service that TAMC will review. Services on the menu include low complication and low risk procedures, on-site training for various techniques and procedures, and virtual lessons on topics that are easily taught/discussed via virtual platform and other management and monitoring service.



10 Conclusion

In three days, participants had the opportunity to share their jurisdictional successes and struggles, hear the lessons and take in the recommendations from subject matter experts, interact with the newest telehealth technologies first-hand, and collaboratively work on a telehealth plan moving forward. As demonstrated in the jurisdictional presentations, developing telehealth and telecommunications is neither a small feat nor an isolated activity. This workshop has served as a gathering place for participants to find their bearings as telehealth stakeholders and champions in the region.

As a final workshop activity, an action items list was drafted. The action items presented here highlight the immediate activities that stand out as low-risk, high-yield tasks that might serve as a starting point. These action items include:

- Dissemination of the USAPICT Telehealth Workshop Report
- Dissemination of the Shriners workflows
- Submit request for the demonstration of devices/equipment from vendors
- Coordination with the participants on types of devices/equipment/solutions that are most sought after
- Consider partnerships with the Pacific Basin Medical Association (PBMA) and others for expanded telehealth devices/equipment/solutions demonstration
- Coordination with Tripler Army Medical Center/Veterans Affairs on responses to Veteran-focused questions from the jurisdictions, and follow-up on the requirements for the Pacific Island Healthcare Project
- Make available a portal for the Telehealth Interprofessional Education (TIPE) modules
- Partnerships with jurisdictions on transconverting What to expect in a telehealth visit training modules
- Collection of feedback from jurisdictions on telehealth project ideas in need of funding
- PBTRC to share jurisdictional powerpoint presentations and participant lists in web portal
- PBRTC to share lists of policies
- Dissemination of tele-technician job descriptions from Guam Memorial Hospital Authority

At the close of the 2022 U.S. Affiliated Pacific Island Countries and Territories Telehealth Workshop, participants were encouraged to reflect back on all their workshop experiences and take home with them a final charge to drive their jurisdictional plans into actionable solutions and move forward all together.

Goal Tracking Plan

As previously mentioned, representatives from each jurisdiction identified short (3 months), medium (6 months) and long term (1-2 years) goals to improve telehealth services throughout their communities. In order to track the progress of these goals, the PBTRC has developed a plan to assist the jurisdictions in continuing their efforts towards achieving their goals. The jurisdictional goals and any other workshop information (e.g., workshop agenda, participants list, and resources) is hosted on a password protected portal for the Pacific Island Countries and Territories' representatives to access and/or download. To gain access to the 2022 USAPICT Telehealth Workshop portal, send a request email to pbtrc@uhtasi.org.

The PBTRC Team will encourage the Pacific Island Countries and Territories by checking in with the jurisdiction's point of contact each month until August 2023. A check-in email will be sent with a short success story from a particular jurisdiction which achieved one or more of their goals. Additionally, the PBTRC Team will request if there are any further updates regarding progress on the jurisdictions respective goals and if they want to provide any other information about pocket-projects in the works. Upon receipt of a new update, the PBTRC will upload the latest news onto the 2022 USAPICT Telehealth Workshop Portal.

In addition, the PBTRC Team will conduct quarterly check-in meetings collectively with all the jurisdictional workshop participants. Throughout the check-in meetings, each island country and territory will have an opportunity to share any news on telehealth improvements in their communities. At this time, the jurisdictions may find opportunities for further collaboration and partnership.

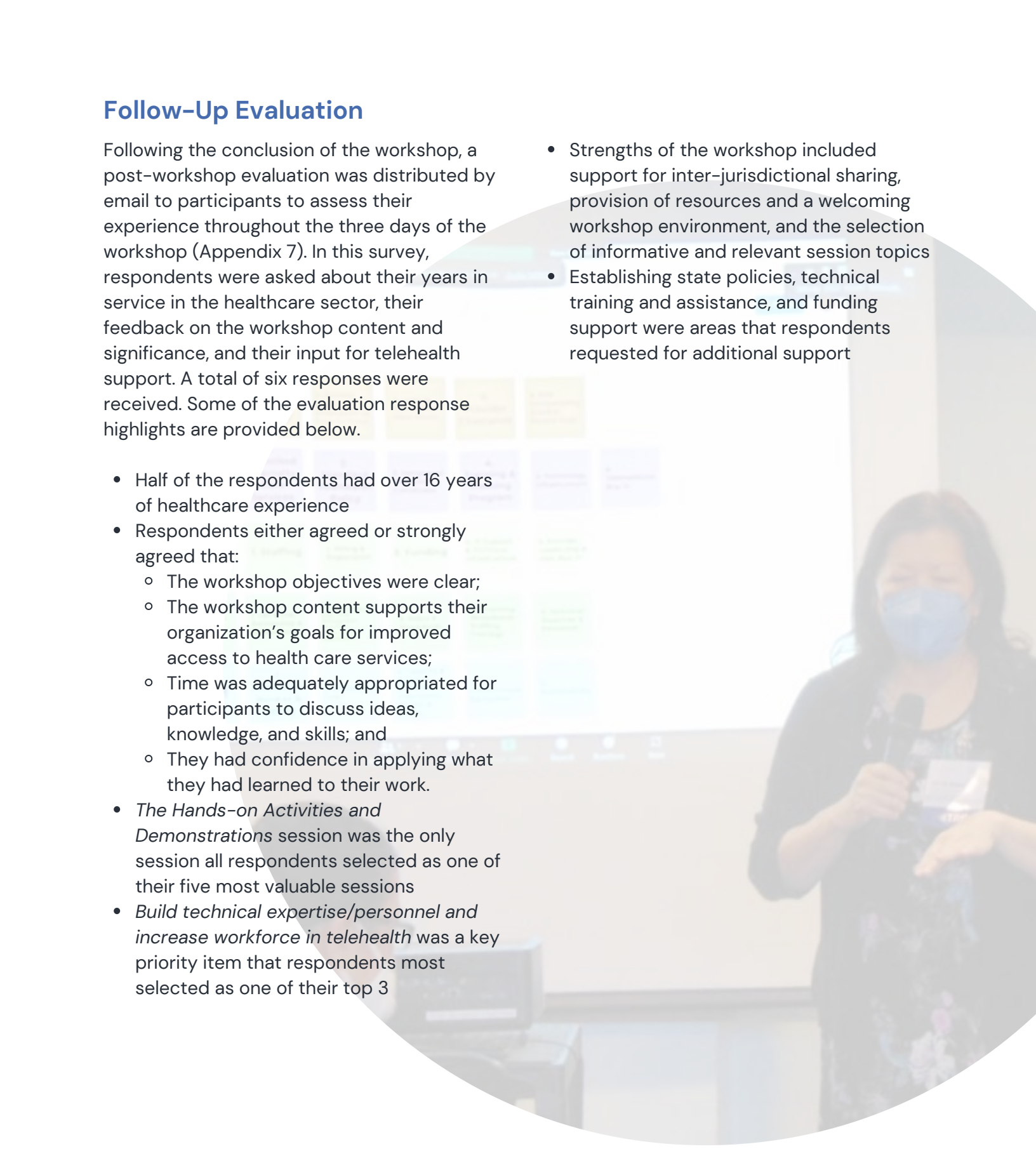
For the workshop icebreaker, participants, guests, and staff picked an angel-word at random from a wooden bowl that they could use to guide their engagement during the workshop.

"I was reflecting since last night and was thinking, my [angel-word] is efficiency, we don't work hard, we work smart. In this group, we have experiences we can share. We can be friends and can ask each other questions and use your experiences to benefit us and vice versa. I realize that we live on different islands but have different challenges but can help each other."
- Ms. Belen Busby, CHCC

Follow-Up Evaluation

Following the conclusion of the workshop, a post-workshop evaluation was distributed by email to participants to assess their experience throughout the three days of the workshop (Appendix 7). In this survey, respondents were asked about their years in service in the healthcare sector, their feedback on the workshop content and significance, and their input for telehealth support. A total of six responses were received. Some of the evaluation response highlights are provided below.

- Half of the respondents had over 16 years of healthcare experience
- Respondents either agreed or strongly agreed that:
  - The workshop objectives were clear;
  - The workshop content supports their organization's goals for improved access to health care services;
  - Time was adequately appropriated for participants to discuss ideas, knowledge, and skills; and
  - They had confidence in applying what they had learned to their work.
- *The Hands-on Activities and Demonstrations* session was the only session all respondents selected as one of their five most valuable sessions
- *Build technical expertise/personnel and increase workforce in telehealth* was a key priority item that respondents most selected as one of their top 3
- Strengths of the workshop included support for inter-jurisdictional sharing, provision of resources and a welcoming workshop environment, and the selection of informative and relevant session topics
- Establishing state policies, technical training and assistance, and funding support were areas that respondents requested for additional support



Appendix

11

Appendix 1
Workshop Photos

Workshop Photos are available on the PBTRC Facebook at www.facebook.com/uhpbtrc.

Workshop Photos

From left to right:
Dr. Payne Perman (Pohnpei CHC)
Dr. Tholman Alik (Kosrae CHC)
Ms. Inou Shomour (Chuuk CHC)
Mr. Atson Nakayama (Chuuk CHC)
Mr. Tulensa K. Sigrah (Kosrae Hospital)

From left to right:
Mr. Vincent T. Castro (Kagman CHC)
Ms. Belen Busby (CCHC)
Ms. Halina Palacios (CCHC)

From left to right:
Ms. Paula Manzon (GMHA)
Mr. Cid Mostales (Guam DPHSS)

Workshop Photos

From left to right:
Dr. Eminoni Taraucu Naveno (AS DOH)
Mr. Moefa'auo Bill Emmsley (LBJ)
Dr. Akapusi Ledua (LBJ)
Dr. Malouamaua Tuiolosega (LBJ)

From left to right:
Ms. Dirralukes Ngiraboi (Palau CHC)
Ms. Antonnette O. Merur (Palau MHHS - Division of Nursing)
Dr. Nihla Reddin (Palau MHHS Oral Department)
Ms. Christina Carter (UH AHEC)
Dr. Myra Adelbai-Fraser (Palau MHHS)

From left to right:
Dr. Toby Maurer (University of Indiana)
Ms. Chrissy Kuahine (WCCHC)
Ms. Everlynn Joy Temengil (Palau HHS, Bureau of Behavioral Health)
Ms. Joy Mascardo (Palau HHS, Bureau of Behavioral Health)

Appendix 2

List of Participants, Guests & Presenters

2022 U.S. Affiliated Pacific Island Countries & Territories Telehealth Workshop
Guests, Presenters & Participants List

Name	Organization	Title	Email
Dr. Elizabeth Herene Lauvao	American Samoa CHC	Physician	elauvao@doh.as
Dr. Eminoni Taraucu Naveno	American Samoa DOH	Physician	enaveno@doh.as
Dr. Fiona Trail	American Samoa DOH	Physician	ftrail@doh.as
Dr. Akapusi Ledua	American Samoa LBJ	Chief Medical Officer	akapusi.ledua@lbj.as
Dr. Malouamaua Tuiolosega	American Samoa LBJ	Chairman of Board	mtuiolosega@gmail.com
Mr. Moefa'auo Bill Emmsley	American Samoa LBJ	Chief Executive Officer	b.emmsley@gmail.com
Dr. Chris Hair	ANZGITA – Gut Club, eMentoring	Physician	chris@drchrishair.com
Ms. Halina Palacios	CNMI Commonwealth Healthcare Corporation (CHCC)	Chief of Clinic Services	halina.palacios@chcc.health
Ms. Belen Busby	CNMI Commonwealth Healthcare Corporation (CHCC)	IT Director	bel.busby@chcc.health
Dr. Denise E. Konan	College of Social Sciences, University of Hawai'i at Mānoa	Dean	konan@hawaii.edu
Mr. Atson Nakayama	FSM - Chuuk CHC	IT Manager	atson.nakayama@gmail.com
Ms. Inou Shomour	FSM - Chuuk CHC	Executive Director	ishomour@gmail.com
Dr. Tholman Alik	FSM - Kosrae CHC	Medical Director	TAlik@fsmhealth.fm
Mr. Tulensa K. Sigrah	FSM - Kosrae Hospital	Physician	tksigrah@fsmhealth.fm
Dr. Payne Perman	FSM - Pohnpei CHC	Physician	permanp@gmail.com
Mr. Cid Mostales	Guam Department of Public Health and Social Services	IT Manager/Special Projects	Cid.Mostales@dphss.guam.gov
Mr. Paula Manzon	Guam Memorial Hospital Authority	Chief Clinical Informatics Officer	paula.manzon@gmha.org
Dr. Kelley Withy	Hawai'i/Pacific Basin Area Health Education Center (AHEC), JABSOM	Director	withy@hawaii.edu
Ms. Christina Carter	Hawai'i/Pacific Basin Area Health Education Center (AHEC), JABSOM	Student (Graduate)	cwcarter@hawaii.edu
Mr. Vincent T. Castro	Kagman CHC	Chief Executive Officer	vince.castro@kagmanchc.org
Mr. Ryan White	Mend	Customer Success Manager	ryanw@mend.com
Mr. James Sandine	Mend	Regional Account Executive	james.sandine@mend.com
Mr. Brandon Karpy	Mend	Solutions Architect	brandon.karpy@mend.com
Dr. Joanne Loos	Nancy Atmospera-Walch School of Nursing, University of Hawai'i at Mānoa	Science Writer	joannedr@hawaii.edu

Ms. Kimm Teruya	Nancy Atmospera-Walch School of Nursing, University of Hawai'i at Mānoa	Administrative Officer & Interprofessional Program Manager	kimmt@hawaii.edu
Dr. Lorrie Wong	Nancy Atmospera-Walch School of Nursing, University of Hawai'i at Mānoa	Professor, RN	lorriew@hawaii.edu
Dr. Deborah Mattheus	Nancy Atmospera-Walch School of Nursing, University of Hawai'i at Mānoa	Professor, APRN-Rx	mattheus@hawaii.edu
Ms. Sarah Mucha	mTelehealth	Executive Vice President of Sales	smucha@mtelehealth.com
Dr. Aimee Malia Grace	Office of Strategic Health Initiatives, University of Hawai'i at Mānoa	Director	amgrace@hawaii.edu
Dr. Norman Okamura	Pacific Basin Telehealth Resource Center	Principal Investigator	norman@uhtasi.org
Dr. Christina Higa	Pacific Basin Telehealth Resource Center	Co-Director	christina@uhtasi.org
Ms. Sylvia Mann	Pacific Basin Telehealth Resource Center	Co-Director	sylvia@hawaiigenetics.org
Ms. Umerang Imetengel	Pacific Basin Telehealth Resource Center	Staff	umerang@uhtasi.org
Ms. Alyssa Shimizu	Pacific Basin Telehealth Resource Center	Staff	alyssa@uhtasi.org
Ms. Keani Valdez	Pacific Basin Telehealth Resource Center	Staff	keani@uhtasi.org
Ms. Charmaine Aoki	Pacific Basin Telehealth Resource Center	Staff	charmaine@uhtasi.org
Ms. Pam Fujii	Pacific Basin Telehealth Resource Center	Staff	pam@uhtasi.org
Ms. H. Gingerlei Porter	Pacific Basin Telehealth Resource Center	Staff	ginger@uhtasi.org
Ms. Anika Trotman	Pacific Basin Telehealth Resource Center	Staff	anika@uhtasi.org
Ms. Britanica Sene	Pacific Basin Telehealth Resource Center	Staff	britanica@uhtasi.org
Ms. Cielo Subia	Pacific Basin Telehealth Resource Center	Staff	pbtrc@uhtasi.org
Ms. Yangdon Yangdon	Pacific Basin Telehealth Resource Center	Staff	pbtrc@uhtasi.org
Dr. Neal Palafox	Pacific Island Programs U54 PIPCHE, University of Hawai'i Cancer Center	Physician	npalafox@hawaii.edu
Ms. Tenaya Jackman	Pacific Islands Primary Care Association	Technical Assistance Specialist	tjackman@pacificislandspca.org
Dr. Myra Adelbai-Fraser	Palau - Ministry of Health and Human Services	Physician	madelbai@gmail.com
Ms. Dirralukes Ngiraboi	Palau CHC	Administrative / Operations Manager	dirralukes.ngiraboi@palauhealth.org
Ms. Everlynn Joy Temengil	Palau Ministry of Health & Human Services	Project Investigator, PMHCA Telehealth Project	temengil.ej@gmail.com
Ms. Antonnette O. Merur	Palau Ministry of Health & Human Services	Acting Chief of Nursing	amerur@gmail.com
Ms. Joy Mascardo	Palau Ministry of Health & Human Services	Epidemiologist	joy.mascardo@palauhealth.org
Dr. Nihla Reddin	Palau Ministry of Health and Human Services-Oral Health Department	Dentist	nihlareddin@gmail.com
Ms. Bonnie Preston	Region 9, US Department of Health and Human Services	Acting Director and Executive Officer	Bonnie.Preston@hhs.gov

Ms. Susan Yamamoto	Shriners Children's Hawai'i	Telehealth Coordinator	syamamoto@shrinenet.org
Maj. Nathan Jordan	Tripler Army Medical Center	Physician MAJ, MC, USA	nathan.a.jordan6.mil@mail.mil
Dr. Jennifer Mbuthia	UH JABSOM/PBTRC	Physician	jennifer.mbuthia@gmail.com
Mr. Johnny Aldan	Center for Indigineous Innovation and Health Equity, University of Hawai'i at Mānoa	Data & Policy Analyst	jtaldan@hawaii.edu
Dr. Toby Maurer	Founder of Maurer Dermatology Associates; University of Indiana	Physician; Professor, Clinical Dermatology	maurertoby@gmail.com
Ms. Omayra Brabham	VA Pacific Islands Health Care System	Associate Chief Nurse Connected Care	Omayra.Brabham@va.gov
Mr. Rich Bettini	Waianae Coast Comprehensive Health Center	Chief Executive Officer	rbettini@wcchc.com
Ms. Chrissy Kuahine	Waianae Coast Comprehensive Health Center	Director, Clinical & Patient Informatics	mkuahine@wcchc.com
Dr. Stephen Bradley	Waianae Coast Comprehensive Health Center	Chief Medical Officer, Medical Administration	SBradley@wcchc.com
Ms. Juanita "Aunty Nalani" Beioni	Waianae Coast Comprehensive Health Center, Native Hawaiian Healing Center	Ha Ola Village Executive Assistant, Native Hawaiian Healing, Kupuna Council	juabenioni@wcchc.com

Appendix 3
Workshop Agenda

AGENDA

U.S. Affiliated Pacific Island Countries & Territories Telehealth Workshop

August 15-17, 2022
Honolulu, Hawai'i

Day 1: Monday August 15, 2022
LOCATION: Executive Dining Room, Campus Center – University of Hawai'i at Manoa
VIRTUAL ZOOM ROOM: https://uhtasi.zoom.us/j/87590881054?pwd=TnVveUdQTTNxdEs3eUNXTmdQR0Y5Zz09
ZOOM ROOM PASSWORD: 045202

TIME	SESSION # and TITLE	PRESENTER(S)
8:15 AM	**Shuttle Departs Ala Moana Hotel**	
8:30 AM - 9:15 AM	**Check-In & Breakfast**	
9:15 AM – 9:45 AM	**Welcome & Workshop Overview** 1. Open Prayer - Dr. Akapusi Ledua 2. Welcoming Remarks from the Dean of the College of Social Science, UH Manoa 3. Special Remarks from DHS Region IX Acting Director 4. Welcome from TASI Director 5. Overview of the Workshop: Including Reflection	1. **Dr. Akapusi Ledua,** Am. Samoa LBJ Medical Center 2. **Dr. Denise Eby Konan**, Dean of the College of Social Sciences 3. **Bonnie Preston,** Acting Director and Executive Officer, Region 9, US DHHS 4. **Dr. Norman Okamura,** TASI Director 5. **Dr. Christina Higa,** PBTRC Co-Director
9:45 AM - 10:00 AM	**Ice Breaker and Introductions** ● Participants and Guests give short introduction of themselves ● Presentation Line-up Activity	**H. Gingerlei Porter,** PBTRC Coordinator
10:00 AM – 11:00 AM	**Session 1.1:** Jurisdictional Briefings Part 1 *15 Minutes Each x 3 Jurisdictions* ● Health Care Landscape ● Needs/ Challenges ● Telehealth Initiatives ● Other: priorities, special populations (VA)	3 Presentations: **Line-up TBD* 1) Guam 2) American Samoa 3) CNMI
11:00 AM – 11:10 AM	Morning Break	
11:10 AM – 12:20 PM	**Session 1.2:** Jurisdictional Briefings Part 2 *15 Minutes Each x 4 Jurisdictions* ● Health Care Landscape	**Line-up TBD* 4) Kosrae 5) Chuuk 6) Palau

	● Needs/ Challenges ● Telehealth Initiatives ● Other: priorities, special populations (VA)	
12:20 PM - 12:30 PM	**Wrap-Up Morning Session**	● Facilitated **Christina Higa, PhD**
12:30 PM – 1:15 PM	**Lunch :** *Mend Sponsored and Presentation* Virtual Presentation by Mend, Telemedicine Software Platform	● **James Sandine,** Regional Account Executive ● **Brandon Karpy,** Solutions Architect ● **Ryan White**, Customer Success Manager
1:15 PM – 2:15 PM	**Session 1.3:** Success Stories & Updates from the Pacific 1. Guam Memorial Hospital Authority 2. Kosrae Community Health Center 3. Shriners Hospital for Children	1. **Paula Manzon**, GMHA 2. **Dr. Tholman Alik,** Kosrae CHC 3. **Susan Yamamoto,** Telemedicine Coordinator, Shriners Hospital for Children
2:15 PM – 3:15 PM	**Session 1.4:** Talk Story with a Hawaii FQHC: Waianae Coast Comprehensive Health Center	● **Chrissy Kuahine,** Director, Clinical & Patient Informatics ● **Dr. Bradley, Rich Bettini**, CEO & Patient Services (Invited)
3:15 PM – 3:30 PM	Break	
3:30 PM – 4:30 PM	**Session 1.5: Jurisdictional *Breakout Sessions*** ***Part 1: Reflection - 10 Min*** ● What caught your attention? ● What did you learn that could be applied to your environment? ● What would you like to learn more about? ***Part 2: Report Back - 20 Min*** ***Part 3:* Review Needs & Challenges (Jurisdictional / or Regional)** ● Note Needs/Challenges/What Works ● Reflect Over Night	● Facilitated **Christina Higa, PhD**
4:30 PM - 4:45 PM	**Wrap Up Day 1** ● Review Day 2 Discussion Points ● GROUP Photo	● Facilitated **Christina Higa, PhD**
5:30 PM	**Shuttle Departs UH Manoa to Ala Moana Hotel**	

Day 2: Tuesday, August 16, 2022
LOCATION: 9-1PM Executive Dining Room, Campus Center - University of Hawai'i at Manoa
1-4PM UHM School of Nursing - UH Translational Health Science Simulation Center

TIME	SESSION # and TITLE	PRESENTER(S)
8:15 AM	**Shuttle Departs Ala Moana Hotel**	
8:30 AM - 9:00 AM	**Check-In and Breakfast**	
9:00 AM - 9:05 AM	**Overview of the Day** - Review Agenda	• Facilitated by **Dr. Christina Higa**
9:05 AM – 10:05 AM	**Session 2.1** *Global Health: Successful Telehealth Service Models for Remote, Rural and Limited Resource Areas*	• **Dr. Toby Maurer,** Indiana University School of Medicine
10:05 AM - 10:45 AM	***Review of Telehealth Terms and Concepts (10 Min)*** ***Regroup: Breakout Sessions Part 1 (15 Min)*** • Review Needs & Challenges (Jurisdictional / or Regional) **Report Back - 15 Min** ***Breakout Sessions Part 2*** • Categorize • Prioritize Issues (dots)	• Facilitated by **Dr. Christina Higa**
10:45 AM - 10:55 AM	**Break**	
10:55 AM - 12:10 PM	**Session 2.2:** Addressing Needs, Challenges and Solutions with SMEs (Part 1) • Technology: AHA or Paddlet (recorder) • Collected comments on Day 1 • Check Issues Identified, Add More • Prioritize with Sticker Dots to Frame Discussion	**Subject Matter Experts:** • Chrissy Kuahine • Paula Manzon • Sylvia Mann • Dr. Toby Maurer • Susan Yamamoto • Dr. Kelly Withy • Dr. Jennifer Mbuthia • Norman Okamura, PhD • Christina Higa, PhD
12:10 PM– 12:40 PM	Lunch	
12:40 PM - 1:00 PM	Walk to School of Nursing Translational Health Science Simulation Center	

<table>
<tr>
<td>1:00 PM – 2:45 PM</td>
<td>Session 2.3: Hands-On Workshop at the Translational Health Science Simulation Center (THSSC) at the Nancy Atmospera-Walch School of Nursing (NAWSON)[1]
<table>
<tr><td>A</td><td>TIPE Modules and AHEC</td><td>310</td></tr>
<tr><td>B</td><td>Tyto Demo</td><td>334</td></tr>
<tr><td>C</td><td>Cart Mock-up</td><td>311</td></tr>
<tr><td>D</td><td>Phone Peripherals</td><td>312</td></tr>
</table>
</td>
<td>Telehealth Practices and Technologies Stations for Rounding:

TIPE Modules and AHEC Program information with Joanne Loos, PhD; Kimm Teruya; Christina Carter; Kelley Withy, MD

Tyto Remote Physical Exam Demonstration with Lorrie Wong, PhD, RN; Deborah Mattheus, PhD, APRN-Rx

Cart Mock-up Demonstration with Jennifer Mbuthia, MD

Phone Peripherals for Telemedicine with Chrissy Kuahine</td>
</tr>
<tr>
<td>2:45 PM – 3:45 PM</td>
<td>Session 2.4: Telehealth Demonstrations
● Telederm demo
● eICU, Innovator Health demo (Rounder)</td>
<td>Telehealth Demonstrations with
● Dr. Toby Maurer, Indiana University School of Medicine
● Paula Manzon, Guam Memorial Hospital</td>
</tr>
<tr>
<td>3:45 PM – 5:15 PM</td>
<td>Session 2.5: Free Time</td>
<td></td>
</tr>
<tr>
<td>5:30 PM</td>
<td>Shuttle Departs UH Manoa to Ala Moana Hotel</td>
<td></td>
</tr>
</table>

[1] Address:
2528 McCarthy Mall, Webster Hall, 3rd Floor, Honolulu, HI 96822

Day 3: Wednesday, August 17, 2022
LOCATION: Executive Dining Room, Campus Center - University of Hawai'i at Manoa

TIME	SESSION # and TITLE	PRESENTER(S)
8:15 AM	**Shuttle Departs Ala Moana Hotel**	
8:30 AM – 9:00 AM	**Check-In & Breakfast**	
9:00 AM – 10:00 AM	**SESSION 3.1:** Reflection on Hands-On Experience - What did you learn? - What technology do you need and can implement in the short term? Long term? - Challenges of implementation? - Besides technology, what else would you need to implement the technology and services? (e.g., training, policies, etc.) ● Start to think about short, medium, long term goals. ● Define short, medium, long term.	● Facilitated by **Dr. Christina Higa**
10:00 AM – 10:30 AM 3	**Discussion on Telehealth Policies** - Reimbursement - Public & Private - Licensure - Temporary Medical License Process	● Facilitated by **Dr. Christina Higa**
10:30 AM – 12 Noon	**SESSION 3.2:** Distance Learning Opportunities - CME - Other Certifications - Certified Training Centers	● **10:30 AM Dr. Kelley Withy,** UH AHEC ● **11 AM Dr. Neal Palafox**, UH JABSOM ● **11:30 AM Dr. Chris Hair,** ANZGITA – Gut Club, eMentoring (7:30 AM EST Australia)
12 Noon – 1:00 PM	Lunch	
1:00 PM – 2:00 PM	**SESSION 3.3:** VA Telehealth Discussion: Pacific Island veteran and telehealth opportunities	● **Omayra Brabham**, Associate Chief Nurse for Connected Care, Veterans Affairs Pacific Island Health Care System (VAPIHCS) ● **Aimee Malia Grace**, Director, Office of Strategic Health Initiatives
2:00 PM – 3:00 PM	**SESSION 3.4:** Tripler Army Medical Center Discussion: Specialist Network Opportunities	● **Dr. Nathan Jordan,** Tripler Army Medical Center Ophthalmology
3:00 PM - 3:15 PM	**Break**	

3:00 PM - 4:30 PM	**SESSION 3.5:** Breakout: Identify small wins and incremental goals + Resources Needed ● What do we need to explore more? ● Short Term - 90-Day Goal (2 activities) ● Medium Term (2 activities) ● Long Term (2 activities)	(45 minutes) - Exercise (30 minutes) - Report Back
4:30 PM - 5:00 PM	**Report Back & Final Wrap-Up**	Participant Final Reflections
5:30 PM	**Shuttle Departs UH Manoa to Ala Moana Hotel**	

Directions to UH THSSC:
From Zone 20 parking structure, you can walk up to THSSC by following the linked map. THSSC is located in Webster Hall, which is next to the Queen Liliuokalani Student Services Center. Webster Hall is the building with a trellis and vines & flowers at our entryway. If you enter the building you can walk down a hall that leads to elevators (or go through the glass doors and there is a stairwell). Take the elevator to the 3rd floor, THSSC is to the right of the elevator when you exit the elevator. Please ring the doorbell and someone will greet you at the door to help you in.

Appendix 4

Jurisdictional Briefing Presentation Reports

Guam Jurisdiction Report

Cid Mostales – Systems Programmer (DPHSS)
Paula Manzon – Chief Clinical Informatics Officer (GM

Overview of Health Care Environment and Priorities

General Demographics

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

Guam Demographics Profile

Home > Factbook > Countries > Guam

Population	168,801 (July 2021 est.)
Nationality	**noun:** Guamanian(s) (US citizens) **adjective:** Guamanian
Ethnic groups	Chamorro 37.3%, Filipino 26.3%, White 7.1%, Chuukese 7%, Korean 2.2%, other Pacific Islander 2%, other Asian 2%, Chinese 1.6%, Palauan 1.6%, Japanese 1.5%, Pohnpeian 1.4%, mixed 9.4%, other 0.6% (2010 est.)
Languages	English 43.6%, Filipino 21.2%, Chamorro 17.8%, other Pacific island languages 10%, Asian languages 6.3%, other 1.1% (2010 est.)
Religions	Christian (predominantly Roman Catholic) 94.2%, folk religions 1.5%, Buddhist 1.1%, other 1.6%, unaffiliated 1.7% (2020 est.)
Age structure	**0-14 years:** 27.22% (male 23,745/female 22,122) **15-24 years:** 16.08% (male 14,522/female 12,572) **25-54 years:** 36.65% (male 31,880/female 29,871) **55-64 years:** 10.5% (male 9,079/female 8,610) **65 years and over:** 9.54% (male 7,504/female 8,577) (2020 est.)
Dependency ratios	**total dependency ratio:** 52.4 **youth dependency ratio:** 36.4 **elderly dependency ratio:** 16.1 **potential support ratio:** 6.2 (2020 est.)

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

Table 1.
Population of Guam: 2010 and 2020

Geographic area	Population		Change (2020 less 2010)	
	2010	2020	Number	Percent
Guam	**159,358**	**153,836**	**-5,522**	**-3.5**
Agana Heights municipality	3,808	3,673	-135	-3.5
Agat municipality	4,917	4,515	-402	-8.2
Asan municipality	2,137	2,011	-126	-5.9
Barrigada municipality	8,875	7,956	-919	-10.4
Chalan Pago-Ordot municipality	6,822	7,064	242	3.5
Dededo municipality	44,943	44,908	-35	-0.1
Hagåtña municipality	1,051	943	-108	-10.3
Inarajan municipality	2,273	2,317	44	1.9
Mangilao municipality	15,191	13,476	-1,715	-11.3
Merizo municipality	1,850	1,604	-246	-13.3
Mongmong-Toto-Maite municipality	6,825	6,380	-445	-6.5
Piti municipality	1,454	1,585	131	9.0
Santa Rita municipality	6,084	6,470	386	6.3
Sinajana municipality	2,592	2,611	19	0.7
Talofofo municipality	3,050	3,550	500	16.4
Tamuning municipality	19,685	18,489	-1,196	-6.1
Umatac municipality	782	647	-135	-17.3
Yigo municipality	20,539	19,339	-1,200	-5.8
Yona municipality	6,480	6,298	-182	-2.8
County subdivision not defined	0	0	0	X

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

13.4443° N, 144.7937° E

Location - Guam is located at 13.28° N, 144.47° E in the western North Pacific Ocean. Guam is a tropical island and is the largest and southernmost island in the Marianas Archipelago, which consists of Guam, Rota, Tinian, Saipan and ten other smaller islands. Guam is about three-quarters of the way from Hawaii to the Philippines and is across the International Dateline from mainland United States.

Economic Overview

COVID-19 Pandemic

The Guam Economic Development Authority update of January 20, 2021, summarizes this situation as follows:

> The outbreak of COVID-19, a respiratory disease caused by a new strain of coronavirus, was first detected in China and has since spread globally, including to Guam. On March 11, 2020, the World Health Organization declared the COVID-19 outbreak to be a pandemic. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on the global and Guam economies. The pandemic, and governmental actions in response to the pandemic, have caused, and are expected to continue to cause, a significant disruption of daily life and business activity globally, nationally, and on Guam. These disruptions include the cancellation and prohibition of public gatherings, the prohibition of non-essential workers working outside of their homes, and the closure of some governmental buildings, schools, gyms, religious institutions, bars, dine-in restaurants, and other commercial facilities. The COVID-19 pandemic and related consequences have also disrupted supply chains and could disrupt or delay construction activities. The pandemic has had its most considerable impact on tourism and also on local businesses, employment, and resident expenditures and activities as well.

TABLE A-1
Government of Guam Federal Stimulus and Assistance Update for CARES Act and COVID-19 Programs
As of August 31, 2020 (in $millions)

Department/Agency	Estimated Grant Award	Grant Award Received
Labor (including PUA and FPUC)	$931.9	$464.6
U.S. Small Business Administration, Guam Branch Office	274.2	274.2
Revenue and Taxation	150.2	150.2
Administration	118.0	118.0
Guam Department of Education	41.5	41.5
Office of I Maga'lagan Guahan	28.1	26.1
Guam International Airport Authority	24.5	12.0
Public Health and Social Services	20.7	20.7
Guam Memorial Hospital Authority	12.1	12.1
Public Health and Social Services	9.6	9.6
Guam Economic Development Authority	7.5	0.0
Guam Housing and Urban Renewal Authority	6.9	6.9
University of Guam	4.6	4.6
Bureau of Statistics and Plans	2.9	2.9
Guam Regional Transit Authority	2.7	2.7
All Other Departments / Agencies	6.0	4.9
Total	$1,641.5	$1,151.1

Chart 1 BUILDING PERMITS & CONSTRUCTION CONTRACTS (in thousands)								
Calendar Year	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Building Permits*	449,147	308,451	221,285	433,358	423,015	355,045	487,316	305,347
US Military Construction Contracts	88,001	261,234	164,377	26,463	167,932	306,350	415,878	153,347
Japan Funded Military		44,500						
TOTAL	537,148	614,185	385,622	459,821	590,947	661,395	903,194	458,694

Tourism	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Percent Change from 2019	Percent Change from 2016
Total Visitors	1,511,065	1,559,487	1,525,219	1,631,049	755,615	-53.7%	-50.0%
Occupancy Tax Collected	$40,192,651	$44,011,958	$42,871,223	$45,061,822	$28,390,797	-37.0%	-29.4%

Basic Health Information

In Guam, the delivery of healthcare services is mixed. Services are provided by the Department of Public Health and Social Services (DPHSS) and the Guam Behavioral Health and Wellness Center (GBHWC), formerly known as the Department of Mental Health and Substance Abuse (DMHSA). The Guam DPHSS is organized under five divisions, the Division of General Administration, the Division of public Health, the Division of Environmental Health, the Division of Public Welfare and the Division of Senior Citizens. – https://pihoa.org/guam

There are two civilian hospitals on Guam, the Guam Memorial Hospital Authority (GMHA) located in Tamuning and the Guam Regional Medical City (GRMC) located in Dededo. There is a U.S. Naval hospital for the military and their dependents located on the Guam Naval Base. There are also a number of private clinics located on Guam, including many specialty clinics. – https://www.pihoa.org.guam

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

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Recruitment of Providers and Support Staff

Electronic Health Record

Telehealth Equipment is available but no Telehealth Providers

Capital Grant Renovation

Budget Problems – No Local Funding since 2021

No Medical Director since 2021

No Chief Executive Officer since 2019

Information Technology Support

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

Telehealth Programs

PACIFIC BASIN TELEHEALTH RESOURCE CENTER


Good Samaritan Hospital


AMD
AMD-500


Alcohol Prep Pads

Referral Patterns / Data

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

NRCHC REFERRAL TRACKING		
	6/23/21 TO 12/31/21	1/1/22 TO 4/7/22
NRCHC ADULT CLINIC REFERRAL	338	61
NRCHC PEDS CLINIC REFERRAL	77	27
NRCHC WOMEN'S CLINIC REFERRAL	184	62
GMH ADULT REF. REQUEST F/UP	84	30
GMH PEDS REF. REQUEST F/UP	24	27
GRMC ADULT REF. REQUEST F/UP	19	10
GRMC PEDS REF. REQUEST F/UP	0	3
	726	220
GRAND TOTAL:	946	

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Cardiology

Dermatology

Ultrasound

X-Rays

Info provided by
Maureen Tang - NP

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Telecommunications

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

$875.00 / month

6 accounts = $5250.00 / month
for the whole DPHSS

According to Admin, BPCS does not pay
any for internet services – Debora Zamora

Download Speed	Download Speed	Download Speed
660.14	669.1	102
Mbps	Mbps	Mbps
Upload Speed	Upload Speed	Upload Speed
818.79	844.4	87
Mbps	Mbps	Mbps
https://www.speedtest.net	https://pcmag.speedtestcustom.com	https://www.att.com

Veterans

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

Population on Guam

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

24,726

From the Guam Office
Active Records

They estimate close to 30,000
due do the veterans not
registering with the office.

From the States Website, it
shows about 9000, because it is
counted by files claimed.

There is a few that works with the Department of Defense, but under private companies.

Veterans Affairs is interested in using Telehealth.

Info from Lucia Perez, Office of Veterans Affairs, Asan Guam

Veterans Health Care Needs

Post-traumatic stress disorder (PTSD)

Diabetes Management

Hypertension

Dermatology (Different Skin Conditions)

Cardiology (Heart Disease)

Joint Pains

Knee Replacements

THANK YOU

American Samoa Report

Dr. A. Ledua, Dr. M. Tuiolosega, CEO Moefa'auo B. Emmsley, Dr. E. Lauvao, Dr. E.Naveno

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

Agenda

- Overview of Health Care Environment and Priorities
- Referral Patterns and Data
- Telecommunication Capacity
- Veteran Population

Health Care Environment

Demographics

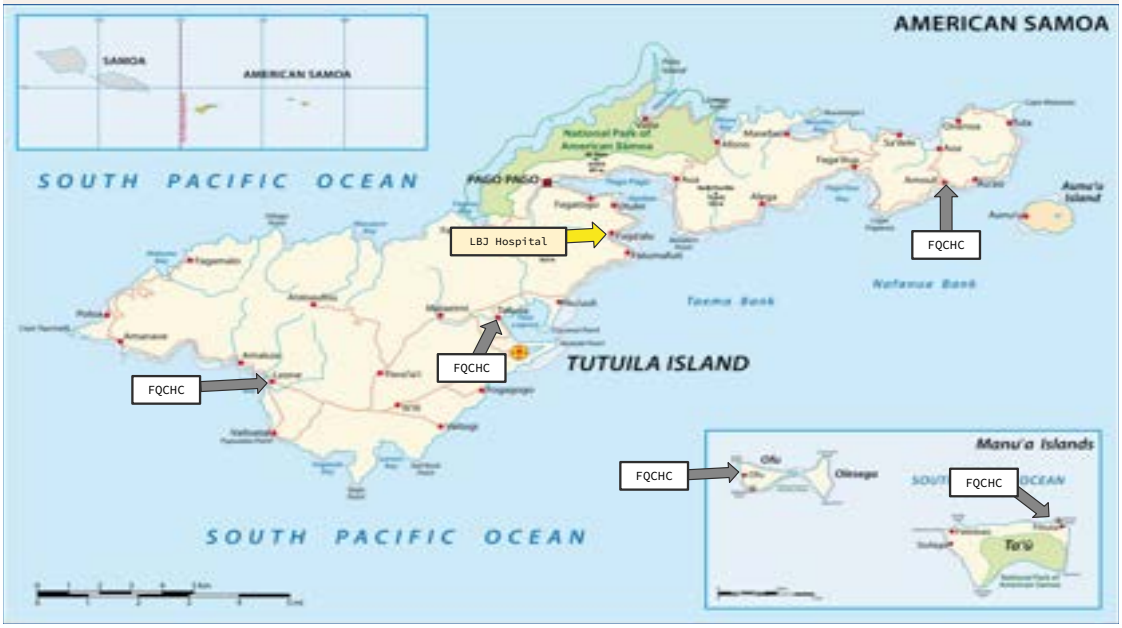
2020 Population: 49,710

64% of pop. live in West. District

Labor distribution:

- Government
- Canneries
- Other

In 2014, AS yielded the highest rate of military enlistment of any State/Territory



Referral from the Community Health Centers (CHC) to LBJ Hospital

MOU to address the Referral, Tracking and Monitoring of patients from CHC to LBJ.

1. Patients are referred for Labs and Radiological studies
2. Patients are referred to Specialty clinics: Emergency Room,Pediatrics, Obstetrics and Gynecology, Surgical, Orthopedic, Internal Medicine, ENT, Ophthalmology and Chronic Kidney Disease clinics.
3. CHC providers will follow up these patients after discharge from LBJ hospital for continuation of care.

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

LBJ Hospital Referral Program off-island

These are the top 4 medical referrals to off-island.

1. Cardiac
2. Urology
3. Orthopedic
4. Cancer

Main referral to Hawaii 80% and 20% to the mainland.

There are about 50 patients refer off-island per month.

Cost: LBJ covers the return airfare only.

Telecommunications:

1. LBJ Hospital
   - 200GIG cost $15,000/month to ASTCA.
   - Video conference
   - VA clinic have their own referral program but also have access to LBJ referral program.
   - Resources: dedicated room to house the telehealth service
   - -patient consultation for Shriner's cases.
   - -medical staff for CME

1. Department of Health
   - Bandwidth is 50 MBPS and 5MBPS for Electronic Health Record
   - Cost: $1,050.00 per month
   - Yes video streaming Zoom, Google meet, Microsoft Teams Facetime
   - Reliable

Veterans:

- 3,200 veterans served by the VA offic: 2,800 are registered and 1,200 live in Samoa.
- VA clinic
- Two physicians
- Referral Program from VA clinic to Tripler Hospital
- LBJ partially involved with specialty care and referrals.

Major Challenges and Priorities

Challenges:

1. Leadership support
2. Health Telemedicine staff to operate
3. Procedures and Process to include credentialing and Finance support.
4. Bandwidth not available to DOH.
5. Territorial State Health Plan for American Samoa to include Health Telemedicine.
6. IT personnel - technical staff.

Priorities/Opportunities:

1. Expansion of telehealth services internally and externally.
2. Technical and Finance support to expand telehealth.

Commonwealth of the Northern Mariana Islands

- The Commonwealth of the Northern Mariana Islands (CNMI) is a U.S. Commonwealth formed in 1978, formerly of the United Nation's Trust Territory of the Pacific region of Micronesia within Oceania. The CNMI is comprised of 14 islands with a total land area of 176.5 square miles spread out over 264,000 square miles of the Pacific Ocean. The CNMI's population lives primarily on three islands; Saipan, the largest and most populated island, is 12.5 miles long and 5.5 miles wide. The other two populated islands are Tinian and Rota, which lie between Saipan and Guam. The nine far northern islands are very sparsely inhabited with few year-round inhabitants and no infrastructure services.
- According to the United States Census Bureau, the total population of the CNMI is 47,329. The diverse CNMI population primarily consists of people of Filipino and Asian descent followed by the indigenous population of Chamorro and Carolinian descent. Other groups include Pacific Islanders from the Federated States of Micronesia (FSM), Marshall Islands, and Palau.

Kagman Community Health Center

Vince Castro, KCHC CEO

Health Care Environment and Priorities

———

- Kagman Isla Community Health
    - Eastern side of Saipan
- Tinian Isla Community Health
    - Providing a choice to Tinian Residents
        - Needs assessments said one barrier to care is that they know the provider personally and don’t want to be seen by the provider

Telecommunications at Kagman Community Health Center

———

- Bandwidth Capacity
    - 200 Mbps download / 20 Mbps upload
- Monthly Cost
    - $650 per month
- Performance Satisfaction
    - Very Reliable – No lags

Veterans in the CNMI (Source Ruth Coleman – VAO Director)

- Recruitments from the CNMI
  - 956 as per 2010 Census report
- Returning US Veterans
  - 550 have enrolled with the CNMI VA Office
- Health Care Needs
  - Specialty Care
  - MRI Services and other advanced Diagnostic Services
  - Physical Therapy and Psychiatry Services

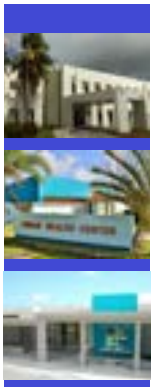
PACIFIC BASIN TELEHEALTH RESOURCE CENTER

CHCC
COMMONWEALTH HEALTHCARE CORPORATION

Improving CNMI health and well-being through excellence and innovation in service

Halina Palacios
Chief of Clinic Services

Belen Busby
Director of Health Informatics and Technology



Improving CNMI health and well-being through excellence and innovation in service

Overview of Healthcare Environment and Priority

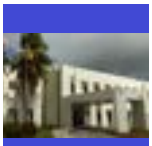
The Commonwealth Healthcare Corporation (CHCC) is the territory's health authority and operates independently as a public corporation. The CHCC oversees the sole hospital and emergency department, located on the capital island of Saipan, and health centers on two neighboring islands. The CHCC provides a variety of services to the CNMI population, including outpatient clinics, laboratory, radiology, and pharmacy, dental, dialysis and oncology units, and population health services for preventative, behavioral health services.

Improving CNMI health and well-being through excellence and innovation in service

Overview of Healthcare Environment and Priority

The economy of the CNMI is greatly dependent on funds received from the United States as well as on tourism from the Asian market. The CNMI economy has, and continues to, struggle since garment industry revenue came to a halt in 2008. Despite recent attempts at economic advancement, the economic structure of the CNMI is not what it once was. Unemployment rates are high on all three islands and based on information collected from the 2010 CNMI Census, 11.2% of the CNMI's population is unemployed. Current minimum wage is $7.25 an hour and 52.3% of the population lives below the federal poverty level. This percentage is more than three times that of the U.S. general population living below the poverty level (15.4%).

Based on information collected in 2014, there were approximately 481 households within the commonwealth dependent on housing assistance funded by federal programs. In 2016, 8,526 people were reliant on supplementary food assistance offered by the Nutritional Assistance Program (NAP)



Improving CNMI health and well-being through excellence and innovation in service

Overview of Healthcare Environment and Priority

- The Commonwealth Healthcare Corporation (CHCC) is the territory's health authority and operates independently as a public corporation.
- The CNMI CHCC uniquely combined outpatient clinics, emergency care, and public health, unlike other states and territories.
- The CHCC oversees the only hospital (86 bed) and emergency department located on the capital island of Saipan.
- The CHCC also directs the Rota Health Center and Tinian Health Center for the islands of Tinian and Rota.
- The CHCC provides various services to the CNMI population, including outpatient clinics, laboratory, radiology, pharmacy, dental, dialysis, oncology units, and population health services for preventative, behavioral health services.

Improving CNMI health and well-being through excellence and innovation in service

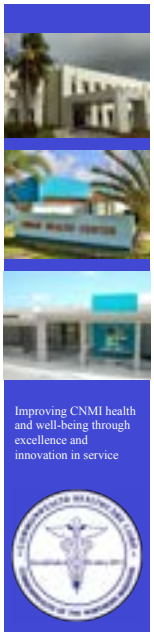
Overview of Healthcare Environment and Priority

Major challenges and priorities :

- Sustainable staffing
- Funding
- Space

Telehealth programs

- TeleMedicine consulting for Outpatient primary care
- Doxy.me : during initial Covid-19 pandemic
- Shriners: children's clinic



Referral patterns and data

- Healthcare services that are referred to off island:
- Currently, the common facilities we have a relationship or patients receiving services, are the following:
    - California (Sharp Hospital, Ronald McDonald Hospital, Keck Hospital, Radys Children Hospital, UCSD, Good Samaritan/PIH Health Whittier Hospital)
    - Hawaii (Queens Hospital, Straub Hospital, Tripler Hospital, Kapiolani Hospital, Shriners Hospital)
    - Guam (Guam Memorial Hospital, Guam Regional Medical City, Guam Radiology Center)

Referral patterns and data

- Based on the Rules & Regulations Title 75: Office of The Governor Chapter 75-50, there are 3 criteria that must be met:
    - Medical Eligibility
    - Income Eligibility
    - Resident Eligibility
- this will determine if logistics will be covered/paid for, such as
    - Airfare
    - Lodging
    - Ground Transportation
    - Subsistence
    - Medical Bills are paid by patient's Health Insurance.



Improving CNMI health and well-being through excellence and innovation in service

Referral patterns and data

FTD 08/11/2022	Saipan	Guam	Hawaii	Con/US	Others	Total
Lodging	35,096.50	1,023,352.70	827,842.06	289,803.67		2,176,046.43
Airfare	16,802.84	298,680.38	220,314.97	1,147,584.20	282,537.99	1,966,920.38
Nurse/Medical Esc	10,411.86	2,445.00	19,948.78	17,222.45	1,175.00	51,203.09
Subsistence	-	342,357.50	161,925.00	681,842.00	-	1,186,124.50
	62,312.70	1,664,785.58	1,230,030.81	2,156,452.32	283,712.99	5,382,294.40

FY 2021	Saipan	Guam	Hawaii	Con/US	Others	Total
Lodging		1,325,393.45	880,259.71		2,588.42	2,917,241.58
Airfare	2,027.50	241,963.52	82,221.40		390,242.95	716,455.37
Nurse/Medical Esc		9,643.90	5,249.85		672,616.65	687,509.40
Subsistence		527,600.00	127,050.00		522,931.57	1,177,801.57
	2,027.50	2,304,620.87	1,203,779.96	-	1,588,379.59	5,099,807.92

FY 2020	Saipan	Guam	Hawaii	Con/US	Others	Total
Lodging		941,535.60	860,827.48		249,167.90	2,051,521.68
Airfare	6,560.00	114,885.90	227,320.10		345,160.93	693,926.93
Subsistence and Nurse/Medical Escort		267,996.00	111,200.45		939,540.20	1,318,706.65
	6,560.00	1,324,378.50	1,199,348.03	-	1,533,868.73	4,064,155.26

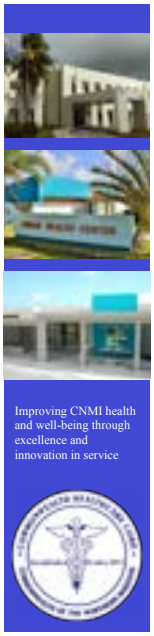
FY 2019	Saipan	Guam	Hawaii	Con/US	Others	Total
Lodging		1,963,588.00	1,007,381.59		249,301.04	3,220,270.63
Airfare	87,960.00	474,304.43	392,483.67		811,244.67	1,766,992.77
Subsistence and Nurse/Medical Escort		1,056,267.91	421,608.64		1,692,414.14	3,170,290.69
	87,960.00	3,494,160.34	1,822,473.90	-	2,752,959.85	8,157,554.09



Improving CNMI health and well-being through excellence and innovation in service

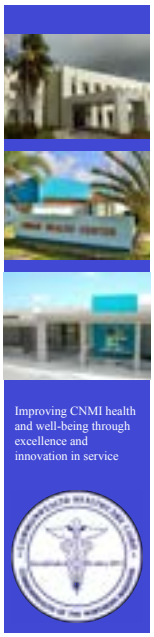
Top 5 referrals from CNMI

2020 942 (662 patients)	2021 647 (452 patients)	2022 787 (551 patients)
Radiology 137	Cardiology 89	MRI study 109
MRI study 107	MRI study 87	Radiology 106
Cardiology 92	Ophthalmology 62	Retinal specialist 59
Neurology 90	Radiology 50	Cardiology 42
Urology 48	Urology 44	Urology 39



Telecommunications

- Bandwidth capacity: 500 mbps
- Monthly cost: $5,049.12
- Performance:
  - Connection from RHC and THC to CHCC to connect to EHR -Very Good
  - Video Conferences – Very Good
  - EHR interface to outside application – Very good
  - Connection to Radiology Images – Very Good



Veterans demographics

- How many U.S. veterans in CNMI: 550
- Veteran healthcare services in the CNMI:
  - Mental health service: Vbox
  - Primary care services: Dr. Norma Ada
  - Specialty services upon referral from Dr. Ada or other VA PCP to CHCC: cardiology, ortho, podiatry, ENT, surgery, radiology, oncology

Chuuk Community Health Center

Atson Nakayama - IT Specialist
&
Inou Shomour - CEO

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

Agenda

- Healthcare Environment
- Demographics
- Challenges
- Referral Patterns/Data
- Telecommunications for telehealth links
- Veterans

3 clinics and 1 telehealth clinic

Demographics

Chuuk State:

- 48,000 population / 71% in the lagoon islands
- 30% in Weno - 41 mortlocks & northwest
- 290 islands/ 40 islands inhabited / 40 health assistants
- 1-2 hrs boat ride / 1 full day outer islands
- 45% of population lives under the Poverty Line
- 1 hospital/ 3 CHC sites
-

Challenges & Priorities

Chuuk State CHC:

- Lack of transportation
- Shortage of trained personnel (increase doctors & nurses)
- Lack of space (seek funding)
- High unemployment rate
- Literacy
- Uninsured
- In the process of establishing a Telehealth clinic - Onoun island.
- EHR implementation.

Referral Patterns/Data

Referrals:

- MRI
- Cancer screening/treatment
- Kidney treatment
- Heart
- Vision
-

Referrals:

- 10 Hospitals in PI
- 3 private pharmacy/clinics Chuuk
- Cost info N/A
- Shriners telehealth
- Swinfen global telehealth network

Telecommunications

Provider: FSM Telecommunications Corps.

- Monthly cost: $1,200
- Bandwidth: 10 megabit
- Performance: depends

Veterans:

- There are about 200 Veterans in the FSM (Federated States of Micronesia)

- Up to 1,500 Micronesians (Republic of Palau, Federated States of Micronesia, and Republic of Marshall Islands) serve in the US Military.

Kinisou Chapur

U.S. Affiliated Pacific Island Countries & Territories Telehealth Workshop

Honolulu, HI
August 15-17, 2022

Team Kosrae

Tholman Alik (Medical Director, KCHC)

Tulensa Sigrah (HR Manager, Kosrae State DHS/ Hospital)

Agenda:

1. Overview of Health Care Environment & Priorities
    - General Demographics
    - Basic Health Information
    - Challenges & Priorities
    - Telehealth Program
2. Referral Programs
3. Telecommunication
4. Veterans
5. Telehealth Strategic Plan

Overview of Health Care Environment & Priorities

PACIFIC BASIN TELEHEALTH RESOURCE CENTER

General Demographics:

Population: 6,616 (2010 Census)

Geographic:

- Only single island in FSM
- 634 meters (2,064 ft) above sea level
- Area: 111.3 km^2 (42.3 sq. miles)
- Volcanic in origin and hilly (steep, rugged mountains and dense jungle in the interior)

General Demographics:

Economic Overview:

- Major economic sectors: marine resources, tourism, and agriculture
- Subsistence farming and fishing remains very important to most families
- The public sector greatly depends upon the economic assistance of the United States through the Compact of Free Association
- GDP: $16 million
- Annual allocation for health sector: $3M
- Unemployment rate: 23%

Basic Health Informatics:

Number of Hospitals, Clinics & Specialty Care

- 1 Hospital (40-60 bed capacity)
- 3 CHCs
- General Specialty Care
    1. Surgery
    2. O&G
    3. Medicine

Basic Health Informatics:

- Sub-specialties: None
- Private Health Care:
    1. Pharmacy

Major Challenges & Priorities:

- Infrastructure
- IT (EHR/ EMR & VisionFlex Tech)
- Diagnostic Capabilities
- Staffing
- Expertise

Telehealth Programs

KCHC

1. Tele-psychiatry (UH-DOP)
2. Swinfen Charitable Network

- Success or Not: Just Getting Started (Baby Steps)

DHS

- None Currently Exist (TAMC Non-Operational)

Referral Patterns/ Data

1. Most Common Reasons For Off Island Referrals
    - Cardiac
    - Gynecology
    - Otolaryngology (EENT)
    - Urology
    - Neurology

Referral Patterns/ Data

2. Annual Referrals =30 Patients

3. Referral Location =PI (Philippines)

4. Hospitals & Providers
    - St. Luke's Medical Center
    - Philippine Heart Center
    - Philippine Kidney Center

Referral Patterns/ Data

___

5. Breakdown of Cost (*Per Case)
    - $12,000 Bypass
    - $12,000 GYN
    - $3,000 EENT
    - $5,000 Urology
    - $10,000 Neurology

Referral Patterns/ Data

___

6. Payment Sources/ Plans
    - Insurance Plans (FSMNHI Program)
    - Hospital Referral Program

7. Overall Annual Estimated Cost (Off-Island Referral)
    - $360,000

Referral Patterns/ Data

8. Referral Expenses Paid For:
    - Airfare
    - Hospital Room & Board
    - Cost of Medical Services (Diagnostics, Therapeutics, Supplies, Artificial Devices & Consumables)

Telecommunication

KCHC

- Bandwidth Capacity
    1. KABOOM (FSMTC ADLS)10MBPS
    2. KACIFIC (Satellite Dish) 72MBPS/72MBPS
- Monthly Cost:
    1. $99/month (KABOOM)
    2. $418/month (KACIFIC)

DHS/ Hospital

- Bandwidth: 12MB
- Monthly Cost: 12,000

Telecommunication

KCHC

- Performance:
  1. Video Conference/Zoom
  2. Telemedicine
- Reliable/ Poor/ Depends

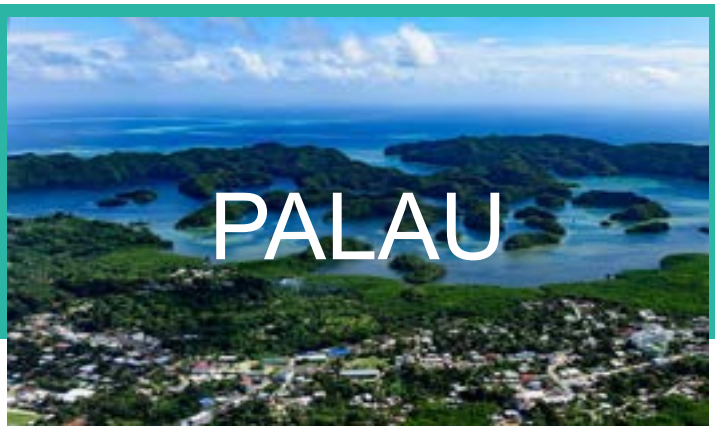
DHS/ Hospital

- Performance
  1. Video Conference/Zoom
- Reliable/ Poor/ Depends

Veterans

- Current Estimated Members On Active Duty =400-500
- Returned Veterans On Island =40
- No Available Data On Health Care Needs
- KCHC Reporting Registered Site Visits (US Military Veterans) CY2022 =4 (3M/1F)

*Source: Kosrae Island Veteran Association (KIVA)



Dr. Myra Adelbai-Fraser, Dr. Nihla Reddin, Dirralukes Ngiraboi, Everlyn Temengil, Antonnette Merur RN, Mailie Rechirei, Joy Mascardo.

Objectives

Introduction: Dermographics, health service coverage.

Telecommunication

Telehealth

Referral Patters/Data

Table 12.1 Vital Statistics: 2015 to 2021

Indicators	2015 Census Year	2016	2017	2018	2019	2020 Census Year	2021
Total Population	17,661	17,715	17,769	18,302	18,851	17,614	16,733
Live Births	242	212	221	256	212	213	224
Crude Birth Rate	13.7	12.0	12.4	14.0	11.2	12.1	13.4
Deaths	136	175	183	143	192	148	170
Crude Death Rate	7.7	9.9	10.3	7.8	10.2	8.4	10.2
Infant Deaths	4	-	5	3	4	4	5
Infant Mortality Rate	29.4	16.5	22.6	11.7	18.9	18.8	22.3
Fetal Deaths*	4	7	2	3	3	5	4

Source: Bureau of Public Health, Ministry of Health & Planning Office, Ministry of Finance, Republic of Palau

* Data on fetal deaths during include abortions.

Notes: (1) Population for 2015 & 2020 are Census figures

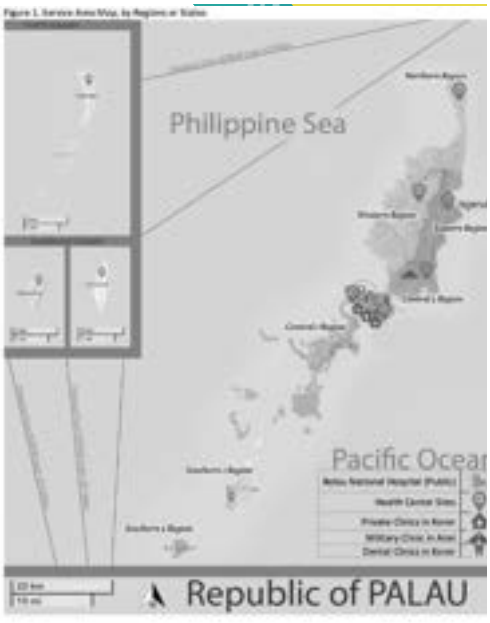
(2) Crude birth rates and crude death rates are the numbers of live births and deaths per 1000 population.

(3) Infant mortality rate is the number of infant deaths under one year of age divided by the number of live births occurring that year; it is shown as per thousand live births.

(4) For Population of year 2013 & 2014: Rough estimate in the absence of migration data. Rate derived from current census minus previous census divided by the number of years in between.

Health Service Coverage

- Main health facility: Belau National Hospital
- Built in 1992
- 80 bed capacity (surge capacity 100)
- 4 beds - ICU & telemetry
- 6 beds - Step Down Units
- 4 main inpatient wards providing general specialty care: Medical/ICU, Surgical, Pediatrics, Gyn-Ob, Psychiatry, and Infectious Disease (TB, COVID).
- 8 Community Health Centers
- Emergency Department - open 24 healthcare provider service.



Telecommunication

Facility telecommunication bandwidth capacity:

Belau National Hospital: 40 mbps (80 mbps)

Community Health Centers: 10 mbps (60 mbps)

Annual cost: $272, 578

Reliable video conferencing

Telehealth

- Shriners Hospital
- Tripler Army Medical Center (Pacific Island Health Care Project)
- Shin Kong Wu Memorial Hospital, Taiwan
- Tele ICU (T-ICU Japan)
- Teleradiology (Cancer program, Belau Medical Clinic)
- Informal teleconsulation
- Distance Learning: CME, WHO POHLN, ANZGITA, Project ECHO, IAEA, ASPER, CDC, PCDC

Referral

- Cardiology: angiogram/stenting, pacemaker insertion, pacemaker battery evaluation and change.
- Cancer: staging and chemotherapy/radiation therapy
- Orthopedics: open reduction, internal fixation, spinal decompression surgery
- Opthalmology: cataract surgery, glaucoma surgeries, retina surgeries and LASIK
- Urology: cystoscopy, ureteroscopy, lithotripsy, prostate procedures
- OB/GYN: TAHBSO
- Neurology: seizure/epilepsy (EEG), aneurysm

Referral

- Number of patients sent off island:
  - 2022: 129 cases
- Referral sites:
  - Taipei, Taiwan: Shin Kong Wu Ho Su Memorial Hospital, Mackay Hospital
  - Manila, Philippines: The Medical City, St. Lukes Medical Center
  - Hawaii, US: TAMC (Pacific Island Health Initiative Program)
- Payment: HealthCare Fund Program (National Health Insurance)
- Costs: Total $598,710.82 (source: HCF)


Mesulang
Mahalo
Si Yu'us Ma'ase
Kulo
Kalahngan
Kammagar
Kinisou
Kommol tata
Fa'afetai

Appendix 5

Jurisdictional Reports Table

	Guam	American Samoa	CNMI	Palau	Yap (FSM)	Chuuk (FSM)	Pohnpei (FSM)	Kosrae (FSM)	Ebeye (RMI)
Geography	Guam is the largest and southernmost island in the Marianas Island archipelago.	American Samoa is made up of the islands of Tutuila, Aunu'u, Ofu, Olosega, Ta'u, and two coral atolls (Swain Island and Rose Island).	CNMI includes the fourteen northernmost islands in the Marianas Island Archipelago.	Palau consists of a group of inhabited islands with Babeldaob island as the largest, and several smaller islands (Koror, Peleliu, Angaur), a coral atoll (Kayangel) in the northernmost part of the archipelago, as well as Southwest Islands of Hatohobei and Sonsorol.	Yap is made up of the islands Yap Proper, Gagil-Tamil, Maap, and Rumung.	Chuuk consists of 290 islands, 40 of which are inhabited.	Pohnpei is made up of one large inhabited island and six atolls.	Kosrae is the only single island in FSM.	Ebeye island is part of the Kwajalein atoll and one of 1,000 volcanic islands,coral atolls, and islets in the RMI.
Demographic	The majority of the population resides in the municipalities of Dededo, Yigo, and Tamuning	The majority of the population resides in the Western District.	The population of CNMI primarily inhabits Saipan, Tinian, and Rota.	More than two-thirds of the population resides on the island of Koror.	Yap has the third largest population among the FSM states.	Most of the population of FSM resides in the state of Chuuk.	Most of the population of Pohnpei resides in Pohnpei island.	All of the population resides on the single island of Kosrae.	Most populated island of the Kwajalein atoll.
Population	168,801 (2021)	49,710 (2020)	47,329 (2020)	16,733 (2021)	11,577 (2020)	48,000 (2010)	36,832 (2020)	6,616 (2010)	39,337 between Majuro and Ebeye (2011)
Health System	Mixed public + large private sector	Mixed public + private	Mixed public + private	Mixed public + private	Mixed public + private	Mixed public + private	Mixed public + private	Mixed public + private	Mixed public + private

	Guam	American Samoa	CNMI	Palau	Yap (FSM)	Chuuk (FSM)	Pohnpei (FSM)	Kosrae (FSM)	Ebeye (RMI)
Hospitals	• Guam Memorial Hospital Authority (public) • Guam Regional Medical City (private)	Lyndon Baines Johnson Tropical Medical Center (public)	Commonwealth Healthcare Corporation (public)	Belau National Hospital (public)	Yap State Memorial Hospital (public)	Chuuk State Hospital (public)	Pohnpei State Hospital (public)	Kosrae State Hospital (public)	Leroij Kitlang Kabua Memorial Hospital (public)
Health Centers	• Guam Behavioral Health and Wellness Center • Department of Public Health and Social Services	Community Health Centers - Tafuna, Leone, Amouli, Ofu, Tau and Fagaalu Primary Care Clinic	• Kagman Community Health Center • Rota Health Center • Tinian Community Health Center	8 Community Health Centers	Wa'ab Community Health Center	Chuuk Community Health Centers in Neou, Sapuk, and Nepukos	Pohnpei Community Health Center in Kolonia	Kosrae Community Health Centers in Tafunsak, Utwa, and Tofol	Ebeye Community Health Center
On-Island Referral Patters & Data	• X-rays • Ultrasound • Dermatology • Cardiology • Rheumatology • Endocrinology	• Labs • Radiological studies • Emergency room • Pediatrics • OBGYN • Surgical • Orthopedic • Internal Medicine • ENT • Ophthalmology • Chronic Kidney Disease	No Information Provided	No Information Provided	No Information Provided	No Information Provided	No Information Provided	No Information Provided	No Information Provided
Off-Island Referral Patters & Data	No Information Provided	• Cardiac • Urology • Orthopedic • Cancer	• MRI • Radiology • Retinal Specialist • Cardiology • Urology	• Cardiology • Cancer • Orthopedics • Ophthalmology • Urology • OBGYN • Neurology	No Information Provided	• MRI • Cancer screening/treatment • Kidney treatment • Cardiac • Vision	No Information Provided	• Cardiac • Gynecology • Otolaryngolog • Urology • Neurology	No Information Provided
Other Referral Information	In 2021 (6/23 - 12/31), there were a total of 726 referrals from Northern Region CHC, GMHA, and GRMC. In 2022 (1/1 - 4/7), there were a total of 220 referrals from Northern Region CHC, GMHA, and GRMC.	Patients are referred off-island at a rate of approximately 50 patients per month. Eighty percent (80%) of referrals are to Hawai'i and the other 20% are to the mainland.	Total cost of referrals in 2022 was $5,382,294.40. Referral sites include California, Hawai'i, and Guam	Total cost of referrals was $598,710.82. Referral sites include: Taiwan, Philippines, and Hawai'i. In 2022, 129 cases were referred off island	No Information Provided	Referrals sites include the Philippines	No Information Provided	The overall estimated total cost for off-island referrals annually is $360,000. Referral sites include the Philippines	No Information Provided

	Guam	American Samoa	CNMI	Palau	Yap (FSM)	Chuuk (FSM)	Pohnpei (FSM)	Kosrae (FSM)	Ebeye (RMI)
Telecommunications Service Provider	GTA Teleguam	American Samoa Telecommunication Authority (ASTCA)	No Information Provided	No Information Provided	No Information Provided	FSM Telecommunications Corporation	No Information Provided	Kaboom (FSM Telecommunications Corporation); Kacific Broadband Satellites	No Information Provided
Telecommunications Cost	Department of Public Health and Social Services: $5250/month	*LBJ Tropical Medical Center: $15,000 / month *Department of Health: • $3,500/month for data • $2800/month for EHR • $2,800/month for VoIP	Kagman CHC: $650/month CHCC: $5,049.12/month for 500 MB	$272,578/year	No Information Provided	Chuuk CHC: $1,200/month for 10 MB	No Information Provided	Kosrae CHC: • Kaboom - $99/month • Kacific (satellite dish): $418/month Department of Health Services: $12,000/month for 12 MB	No Information Provided
Telecommunications Performance Speed	Download speed (highest): 669.1 Mbps Upload speed (highest): 844.4 Mbps	*LBJ Tropical Medical Center: 400 Mbps *50Mbps	Kagman CHC: Download speed: 200 Mbps Upload speed: 20 Mbps No Information Provided for CHCC	Belau National Hospital: Download speed: 40 Mbps Upload speed: 80 Mbps CHCs: Download speed: 10 Mbps Upload speed: 60 Mbps	No Information Provided	No Information Provided	No Information Provided	Kosrae CHC: • Kaboom: 10 Mbps • Kacific: 72 Mbps No Information Provided for Department of Health Services	No Information Provided
Telecommunications Performance Assessment	No Information Provided	Reliable	Kagman CHC: Very reliable, no lags CHCC: Very good connection for • Rota CHC and Tinian CHC to CHCC to connect EHR • Videoconferences • EHR interface to outside application • Connection to radiology images	Video conferencing is reliable	No Information Provided	Depends	No Information Provided	Kosrae CHC and Department of Health Services: reliable/poor/depends for • Zoom/video conferencing • Telemedicine (for Kosrae Community Health Center only)	No Information Provided

	Guam	American Samoa	CNMI	Palau	Yap (FSM)	Chuuk (FSM)	Pohnpei (FSM)	Kosrae (FSM)	Ebeye (RMI)
Telehealth Involvement	Telehealth equipment available for Medicaid clients Note: No telehealth providers currently available	Telehealth equipment available in the community health centers Note: Not being used due to lack of staffing	CHCC telehealth programs: • TeleMedicine consulting for Outpatient Primary Care • Doxy.me (during initial COVID-19 pandemic) • Accessing Telehealth through Local Area Stations (Veteran Affairs, Tinian and Rota) • Partnership with Shriners Children's Hawai'i	Teleradiololgy (Cancer Program, Belau Medical Clinic) Partnership with: • Shriners Children's Hawai'i • Tripler Army Medical Center (Pacific Island Health Care Project) • Shin Kong Wu Memorial Hospital, Taiwan Also involved in: • Informal Tele-consultation • Distance Learning (Continuing Medical Education, World Health Organization Pacific Open Learning Health Net, ANZGITA, Project Extension for Community Healthcare Outcomes, International Society for Quality in Health Care External Evaluation Association, Center for Disease Control and Prevention, Pacific Chronic Disease Council)	No Information Provided	No Information Provided	No Information Provided	Kosrae CHC • Telepsychiatry (University of Hawai'i - Department of Psychiatry) • Swinfen Charitable Network	No Information Provided
Veterans Population	24,726 (estimate 30,000 due to veterans not registering)	3,200 (2,800 registered; 1,200 live in Samoa)	550	No Information Provided	No Information Provided	200	No Information Provided	400-500 (Active Duty) 40 (On Island)	No Information Provided
Veterans Healthcare Needs	• PTSD • Diabetes Management • Dermatology (different skin conditions) • Cardiology (heart disease) • Joint Pain • Knee Replacement	No Information Provided	• Kagman Community Health Center • Specialty Care • MRI Services and Other Diagnostic Services • Physical Therapy • Psychiatry	No Information Provided	No Information Provided	No Information Provided	No Information Provided	No Information Provided	No Information Provided

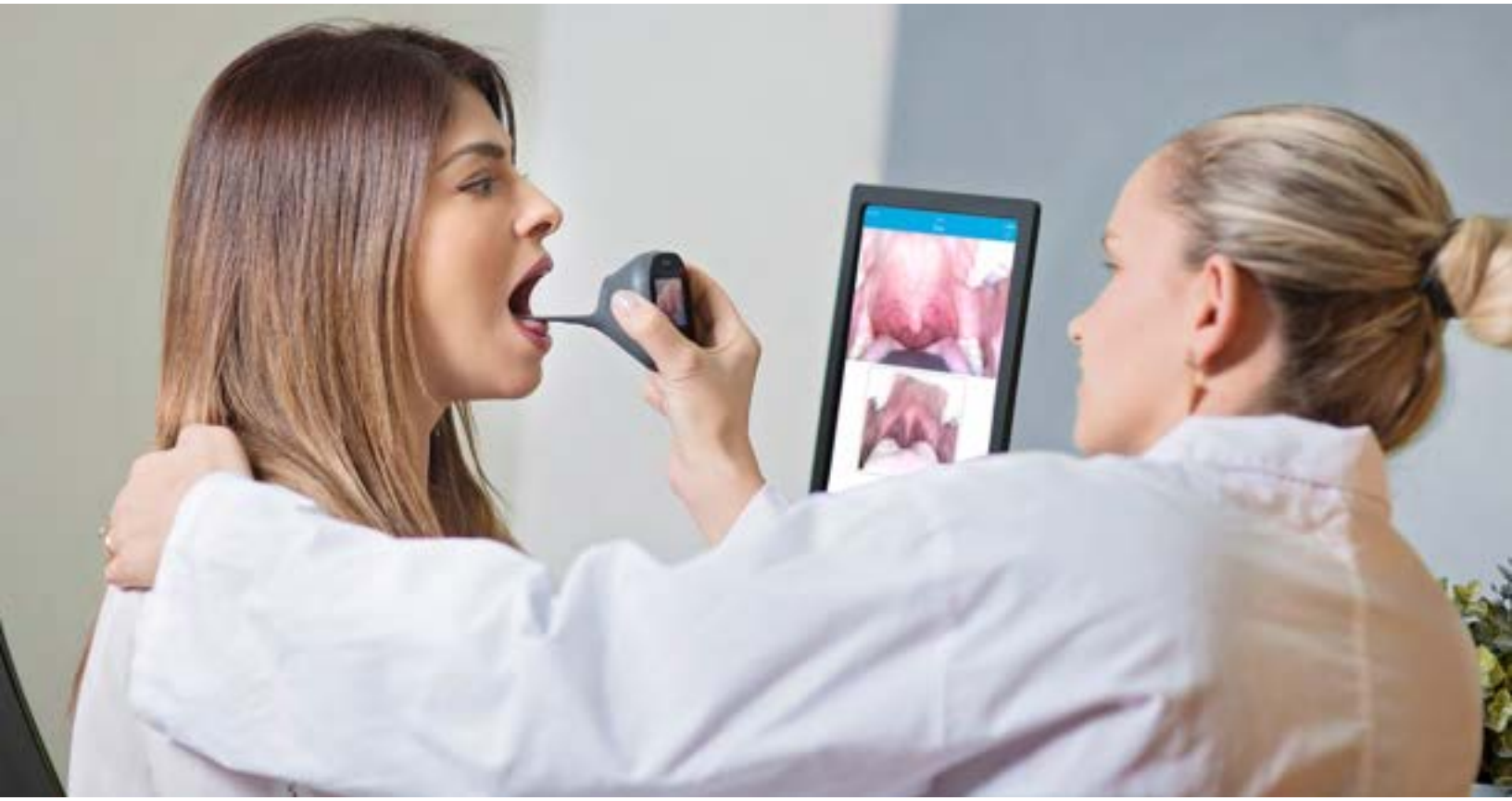
Appendix 6

Telehealth Tools & Resources

tytocare™

Professional Solutions

The Mobile Platform for Clinical-quality Exams at Point-of-Care



As healthcare providers look to extend their reach beyond the clinic, they need to provide their mobile nurses, home-care specialists or clients in the corporate or educational sectors with on-location services - for both taking vital measurements, as well as transmitting them to a consultant or specialist, when needed, for instant diagnosis. Tyto's two professional products, **TytoPro™** and **TytoClinic™**, provide these capabilities for cost-saving, time-saving, point-of-care medical exams, at a level of quality that often exceeds standard diagnostic equipment.

Both products include the Tyto handheld device with hardware and AI-driven software for examining the heart, lungs, throat, skin, ears, and body temperature, and can be used for diagnosing acute conditions such as **cold, flu, ear infections, bronchitis**, and **sore throats**, and for monitoring and managing patients with chronic conditions such as **high blood pressure, asthma, COPD, congestive heart failure (CHF),** and **diabetes.**

TytoPro™

The complete exam solution for clinicians on the go and remote point-of-care

A growing number of patient-facing medical professionals - EMTs, nurses, homecare and senior care specialists - work not in a single clinic or hospital setting, but instead travel to the patient - whether a home visit, school, urgent care clinic, or other scenarios warranting an on-location visit.

Developed for professional use, the TytoPro™ portable examination kit is designed for the rigors of daily "in the field" clinical-level medical exams, allowing clinicians to extend the reach of their specialists to home care, remote specialty consults, schools, and urgent care clinics. For second opions or specialist consults, an instant online video conference can bring in additional support as the clinic-based consultant can both interact directly with the on-location nurse and patient in real time, and also review the exam data collected to help confirm or suggest a diagnosis. With Tyto's physician workflow, exam data can be either reviewed immediately for diagnosis, or stored in the patient's EHR for later analysis, continuity of care, and ongoing symptom tracking.

TytoClinic™

Turn any location into a remote telehealth clinic

TytoClinic™ turns any remote point of care location, such as an employee work site, retail clinic, school, or nursing facility, into a comprehensive yet affordable telehealth clinic. TytoClinic™ includes the **TytoPro™** examination kit for examining the heart, lungs, throat, skin, ears, and body temperature, plus a blood pressure cuff, pulse oximeter, headphones, iPad® and stand, and the TytoVisit™ telehealth platform for sharing exam data with a doctor or conducting live video telehealth visits.

With Tyto, employees, students and other on-site patients can connect with a doctor anytime from the office for an instant examination, diagnosis and prescription if needed.

More than just a device, Tyto is a comprensive telehealth platform:

- The most comprehensive telehealth visit and physical exam available
- FDA and CE Cleared, HIPAA and GDPR compliant
- Clinician Dashboard for Live Video Exams or Exam and Forward
- Open API integration with EHR, existing telehealth systems and 3rd party tools
- Workflow management and analytics

For more information visit us at: www.tytocare.com

Contact us directly at: sales@tytocare.com

Call us at: +1-866-971-TYTO (8986)

Horus *HD* Digital Scope System

Multi **i**ntegrated **i**maging **S**ystem

The Horus *HD* Digital Scope System, designed specifically for telemedicine, is an easy-to-use hand-held video system used for capturing images of the body. This system utilizes interchangeable attachments making it ideal for multi discipline medical applications.

Attachments for ear nose & throat, dermatology, ophthalmology, audiology, women's health, and general examinations are just a few of the potentials of this unique system.

This system incorporates **H**igh **D**efinition (**1080p**) camera technology and offers multiple video output options for connection to your codec. Still images and videos can also be captured with just the touch of a button and transferred seamlessly to a laptop or PC for store and forward applications.

ear nose & throat

ophthalmology

general viewing

dermatology

audiology

Fundus | Derm | Otoscope | Anterior Chamber | General View

Horus Scope - Multi integrated imaging System

1080p **H**igh **D**efinition images are captured and displayed on the 3.5″ full color LCD display.

Illumination is provided by powerful integrated LEDs.

The fine focus control is conveniently located where your index finger comfortably rests on the handle.

Conveniently located controls make this system extremely user friendly. Most functions can be controlled with just your thumb.

Each specialty attachment can be quickly and easily changed by just twisting the optic and removing it from the scope handle. Go from otoscopy to dermatology in just seconds.

Specifications

Resolution -	1920 x 1080p ***HD***
Light Source -	Light Emitting Diode (LED)
Display -	3.5″ full color LCD
Image Format -	jpeg (still) & H.264 (video)
Media Card -	micro SD 2GB (included)
Power Source -	rechargeable lithion ion battery
Operating Time -	3 hours
Weight -	12 oz.
Focusing Range -	5mm to 30mm

JEDMED

5416 JEDMED Court • St. Louis, MO 63129-2221 • (314) 845-3770 • Fax (314) 845-3771 • www.jedmed.com • info@jedmed.com

NONAGON

Healthcare Simply Connected™

Recognized Innovators in Remote Health Monitoring, Chronic Care Management, and Patient-Focused, On-Demand, Healthcare Delivery

mTelehealth™

NONAGON

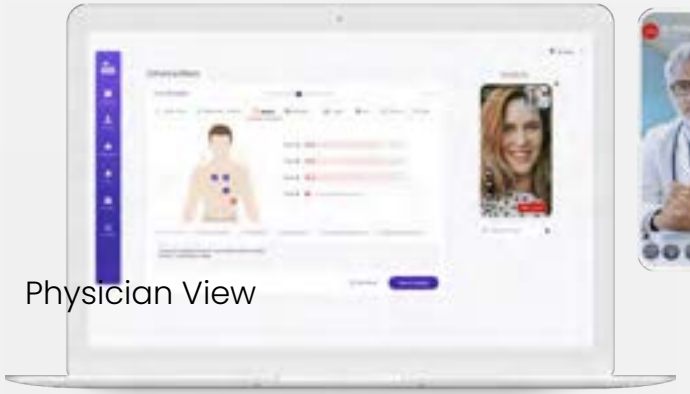
The Nonagon N9

A Remote Patient Examination Platform

Device

Patient App

Web Portals



Physician View

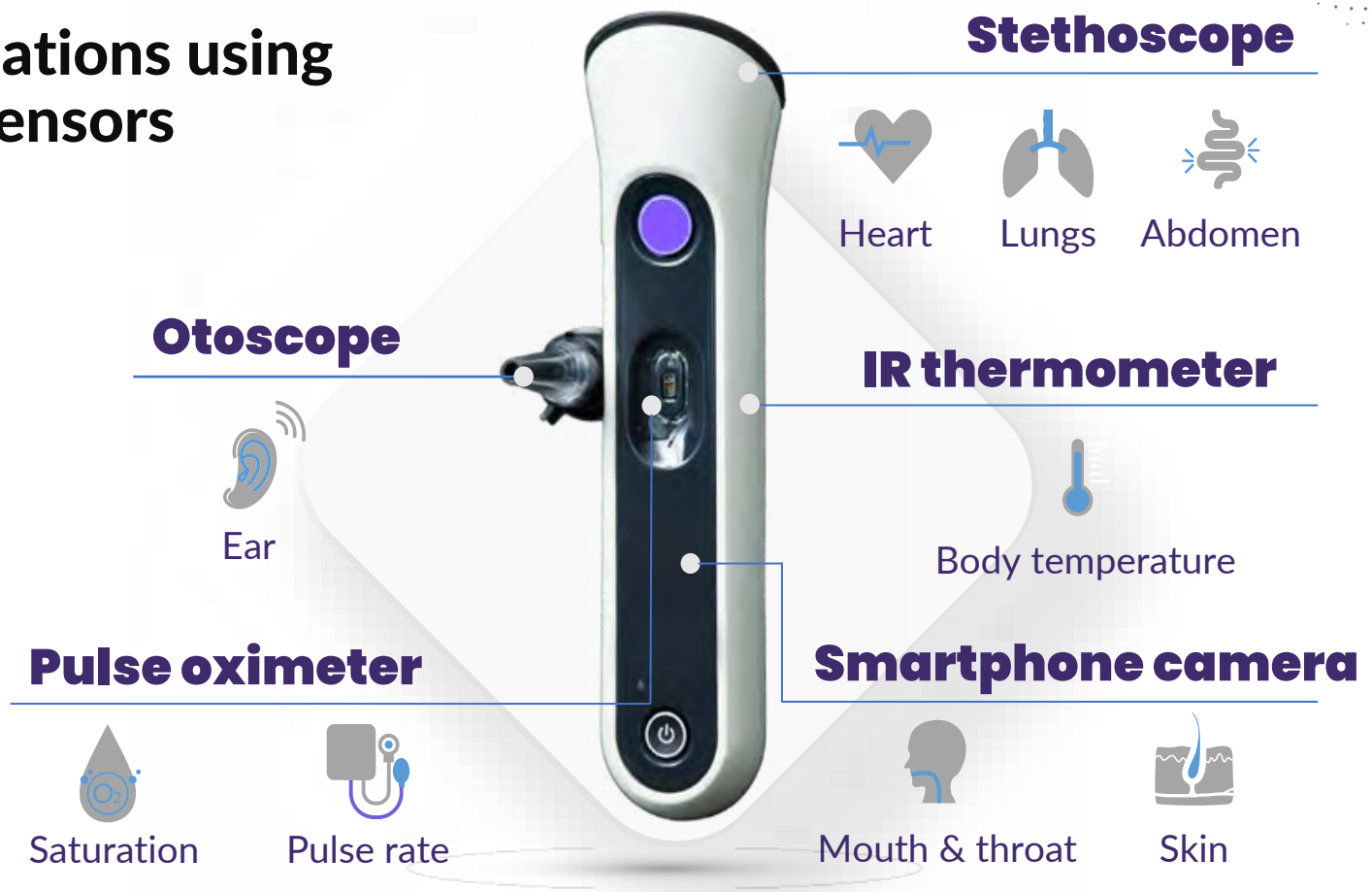
Patient View

Admin tools

Regulation approvals / clearances:

FDA CE ISO 13485 ISO 27001/2 ISO 27799

9 Physical examinations using
4 Medical grade sensors

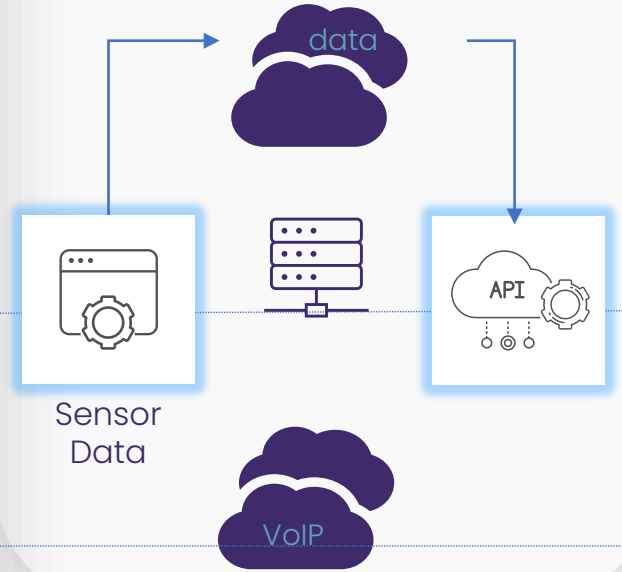


Complete SW/HW solution

Seamless integration with mTelehealth

HW + Patient App

Cloud and backend



Clinician platform

Platform options:

- Standalone
- iFrame
- API

Optimal Integration for all parties

Works intuitively with existing clinical workflows

Seamlessly integrated to EMR systems

Pricing

Confidential Package and Pricing Summary* (Updated 7/11/22)				
Product	**Nonagon N9 Device** (**Single-User**) Unlimited Exam License (i.e. - Remote Patient Monitoring (RPM) Kit)	**Nonagon N9 Device** (**Multi-User**) Unlimited Exam License (School Clinic, Employer Worksite, SNF with Defined Enrollment or Registered # of Beds/Residents)	**Nonagon N9 Device** (**Multi-User**) Single Exam License **FLAT RATE PRICING** (Hospital/Clinic, Traveling Clinician) Flat Rate Pricing is **ONLY AVAILABLE** to Federally Qualified Health Centers (FQHCs), Rural Health Clinics (RHCs), and Critical Access Hospitals (CAHs)	**Nonagon N9 Device** (**Multi-User**) Single Exam License **PER EXAM PRICING** (Hospital/Clinic, Traveling Clinician)
Nonagon N9	**X**	**X**	**X**	**X**
Single-User	**X**			
Multi-User		**X**	**X**	**X**
Per Month (24 mos.)	**$81.17*** Bulk Pricing Available	**$380.56***	**$569.29***	**$56.93 + $4.77 per Exam** (i.e. – a Clinic or Traveling Clinician Performing 100 Virtual Exams per Month = 100 x $4.77 = $477.00 + $56.93 = $533.93)*

* Discounted Rate Per Month When Paid Annually
Pricing Subject to Change

NONAGON

Thank You

mTelehealth, LLC
Marc Poulshock
President and Chief Executive Officer
mpoulshock@mTelehealth.com

255 NE 6th Avenue
Suite A
Delray Beach, FL 33483

ph 561-366-2333, ext. 101
fx 561-366-2332

www.mTelehealth.com

mTelehealth Full Purchase and Lease Price Schedule (8/8/2022)

COMMUNICATION SERVICES, DEVICES, GATEWAYS, CLOUD SERVICES (RECURRING MONTHLY CHARGES)						
ITEM #	**DESCRIPTION**	**QTY**	mTelehealth Price* (per month, upon credit approval)	**TOTAL** MTELEHEALTH PRICE* (per month, upon credit approval)	mTelehealth Price* (per month, paid annually)	**TOTAL** MTELEHEALTH PRICE* (per month, paid annually)
	Communication Services		**MONTHLY RATE** (with credit approval)	**MONTHLY RATE** (with credit approval)	**DISCOUNTED MONTHLY RATE** (when paid annually)	**DISCOUNTED MONTHLY RATE** (when paid annually)
	Nonagon N9 (Multi-User) Unlimited Exam License (i.e. - School Clinic, Employer Worksite, SNF with Defined Enrollment or Registered # of Beds/Residents)	0	$391.59	$0.00	$323.63	$0.00
	Nonagon N9 (Multi-User) Single Exam License (Unlimited Exams, Federally Qualified Health Centers (FQHCs), Rural Health Clinics (RHCs), and Critical Acess Hospitals (CAHs) Special Pricing, Minimum 24-Month Commitment, Paid Annually)	0	$605.00	$0.00	$500.00	$0.00
	Nonagon N9 (Multi-User) Single Exam License (per Exam, Min. of $25 per Month i.e. - Clinic, Hospital)	0	$5.77	$0.00	$4.77	$0.00
	Nonagon N9 (Single-User) Unlimited Exam License (per Month - i.e. - RPM Kit)	0	$29.33	$0.00	$24.24	$0.00
	VAST Teal 1GB plan	0	$33.31	$0.00	$27.53	$0.00
	Bluetooth Auto Pairing	0	$4.60	$0.00	$3.80	$0.00
	Mobile Device Management (MDM) - Samsung KNOX	0	$6.23	$0.00	$5.15	$0.00
	Devices		**MONTHLY RATE** (with credit approval)	**MONTHLY RATE** (with credit approval)	**DISCOUNTED MONTHLY RATE** (when paid annually)	**DISCOUNTED MONTHLY RATE** (when paid annually)
MHD-100-02-001	Nonagon N9 - Remote Medical Visit and 9-Examination Diagnostic Tool	0	$68.89	$0.00	$56.93	$0.00
	Gateways		**MONTHLY RATE** (with credit approval)	**MONTHLY RATE** (with credit approval)	**DISCOUNTED MONTHLY RATE** (when paid annually)	**DISCOUNTED MONTHLY RATE** (when paid annually)
SM-T515NZKDPHN	Samsung Galaxy Tab A 10.1 2019 LTE Black - US and EU	0	$43.69	$0.00	$36.11	$0.00
SM-T510NZKAXAR	Samsung Galaxy Tab A (2019) - Tablet - Android 9.0 (Pie) - 32 GB - 10.1" - **WI-FI ONLY**	0	$28.23	$0.00	$23.33	$0.00
SM-A105FZKUPHN	Samsung Galaxy A10-32GB, 4G Phone	0	$25.54	$0.00	$21.11	$0.00
	Cloud Services		**MONTHLY RATE** (with credit approval)	**MONTHLY RATE** (with credit approval)	**DISCOUNTED MONTHLY RATE** (when paid annually)	**DISCOUNTED MONTHLY RATE** (when paid annually)
001-340-00	Portal Setup and Branding (per month)	0	$121.00	$0.00	$100.00	$0.00
			SUBTOTAL	$0.00		$0.00
			SALES TAX	$0.00		$0.00
			TOTAL COMMUNICATION SERVICES, DEVICES, GATEWAYS, CLOUD SERVICES (RECURRING MONTHLY CHARGES)	$0.00		$0.00
				MONTHLY RATE (with credit approval)		**DISCOUNTED MONTHLY RATE** (when paid annually)

ACCESSORIES (PURCHASE, FLAT FEE)				
ITEM #	**DESCRIPTION**	**QTY**	mTelehealth Price	TOTAL MTELEHEALTH PRICE
	Accessories			
	Samsung Tablet Case for Samsung Galaxy Tab A 10.1 2019 LTE Black	0	$38.00	$0.00
	Samsung Tablet Case for Samsung A10 2019	0	$38.00	$0.00
	Supershieldz Screen Protector for Samsung Galaxy Tab A 10.1 2019 LTE Black	0	$15.20	$0.00
	Supershieldz Screen Protector for Samsung A10 2019	0	$15.20	$0.00
TS-116B	AboveTEK Stylish Aluminum Tablet Stand, Cell Phone Stand, Folding 360° Swivel iPad iPhone Desk Mount Holder fits 4-11" Display Tablets/Smartphones	0	$51.68	$0.00
CWS112MP	The Joy Factory aXtion Bold MP Medical Grade Tablet Case for Samsung Galaxy Tab A 10.1" (2019)	0	$119.99	$0.00
			SUBTOTAL	$0.00
			SALES TAX	$0.00
			TOTAL ACCESSORIES (PURCHASE, FLAT FEE)	$0.00
				TOTAL MTELEHEALTH PRICE

PURCHASE/REPLACEMENT COSTS

ITEM #	DESCRIPTION	QTY	mTelehealth Price	TOTAL MTELEHEALTH PRICE
	Devices			
MHD-100-02-001	Nonagon N9 - Remote Medical Visit and 9-Examination Diagnostic Tool	0	$512.36	$0.00
	Gateways			
SM-T515NZKDPHN	Samsung Galaxy Tab A 10.1 2019 LTE Black - US and EU	0	$494.00	$0.00
SM-T510NZKAXAR	Samsung Galaxy Tab A (2019) - Tablet - Android 9.0 (Pie) - 32 GB - 10.1" - **WI-FI ONLY**	0	$319.20	$0.00
SM-A105FZKUPHN	Samsung Galaxy A10-32GB, 4G Phone	0	$288.00	$0.00
			SUBTOTAL	$0.00
			SALES TAX	$0.00
			TOTAL REPLACEMENT COSTS	$0.00

TOTAL MTELEHEALTH PRICE

PROGRAM FEES (FLAT FEES)

ITEM #	DESCRIPTION	QTY	mTelehealth Price	TOTAL MTELEHEALTH PRICE
	System Setup			
	Implementation Fee	0	$1,520.00	$0.00
	SIM card provisioning/activation	0	$5.32	$0.00
	Software Integration			
001-330-00	Integration Services™	0	$137.11	$0.00
	Customization			
001-330-01	Workflow Design (Rate is Per Hour)	0	$137.11	$0.00
	Device Refurbishing			
	Decommissioning returns and refurbishment at end of program (test, clean and disinfect each device, and cancelation of cellular).	0	$114.00	$0.00
	Training			
001-205-00	Onsite Training *(per day) (Travel not included)*	0	$1,139.00	$0.00
001-205-01	Travel for Onsite Training	0	Direct Cost	Direct cost
001-205-02	Online Training *(per hour)*	0	$170.85	$0.00
	Shipping Services			
	Kitting, Deployment, Overpack Box, and Labeling	0	$115.12	$0.00
	Domestic Shipping	0	Actual Cost	Actual Cost
	International Shipping	0	Actual Cost	Actual Cost
			SUBTOTAL	$0.00
			SALES TAX	$0.00
			TOTAL PROGRAM FEES (FLAT FEES)	$0.00

** Prices subject to change without notice*

	TOTAL MTELEHEALTH PRICE		TOTAL MTELEHEALTH PRICE	
TOTAL COMMUNICATION SERVICES, DEVICES, GATEWAYS, CLOUD SERVICES (RECURRING MONTHLY CHARGES)	$0.00	**MONTHLY RATE** (with credit approval) <<<<<<<<<<	$0.00	**DISCOUNTED MONTHLY RATE** (when paid annually) <<<<<<<<<<
TOTAL ACCESSORIES (PURCHASE, FLAT FEE)	$0.00	**FLAT FEE**	$0.00	**FLAT FEE**
TOTAL REPLACEMENT COSTS	$0.00	**FLAT FEE**	$0.00	**FLAT FEE**
TOTAL PROGRAM FEES (FLAT FEES)	$0.00	**FLAT FEE**	$0.00	**FLAT FEE**

Annually	**$0.00**
One-Time Fees	**$0.00**
Total - Full Agreement Term (24 Months)	**$0.00**

Terms and Conditions

All Prices are in US dollars

Excessive device usage will incur additional fees

[1] 24-month contract and then year to year.

[3] Requires a Return Merchandise Authorization (RMA) Form, Warranty must be purchased upfront.

[6] Cellular Service begins from date of the earlier of Device assignment or 30 days after shipment and is for a minimum term of 24 months.

[7] Some restrictions apply.

Appendix 7
Evaluation Survey

Evaluation Survey

2022 USAPI Telehealth Workshop - Evaluation

Mahalo for attending the 2022 US Affiliated Pacific Island Countries and Territories Telehealth Workshop August 15-17 in Honolulu, Hawaii.

We value your input and feedback as we continue to pursue pathways to assist and improve access to health care and services in the Pacific Region through telehealth.

Your evaluation and comments will be used to improve future workshops.

Years in Healthcare Experience: *

- [ ] 0 - 5 years
- [ ] 6 - 10 years
- [ ] 11 - 15 years
- [ ] 16+ years

Workshop Content *

	Strongly Disagree	Disagree	Agree	Strongly Agree
The objectives of the workshop were clearly outlined.	☐	☐	☐	☐
The content of workshop supports my organizations goals for improved access to health care services.	☐	☐	☐	☐
Time was appropriated for participants to discuss ideas, knowledge and skills.	☐	☐	☐	☐
I feel confident about applying what I have learned to my work.	☐	☐	☐	☐

Evaluation Survey

Which five (5) sessions did you find most valuable? Choose only 5. *

- [ ] Jurisdictional Briefings, Success Stories & Updates from the Pacific
- [ ] Dedicated Time for Discussions Among Each Jurisdiction
- [ ] Talk Story with a Hawaii FCHC: Waianae Coast Comprehensive Health Center
- [ ] Global Health: Successful Telehealth Service Models for Remote, Rural and Limited Resource Areas
- [ ] Review of Telehealth Terms and Concepts
- [ ] Addressing Needs, Challenges and Solutions with Subject Matter Experts
- [ ] Hands-on Activities and Demonstrations
- [ ] Telehealth Policies
- [ ] Distance Learning Opportunities
- [ ] VA Telehealth Discussion: Pacific Island Veteran and Telehealth Opportunities
- [ ] Identify small wins and incremental goals + resources needed

What are your top 3 key priorities and goals? *

- [ ] Establish partnerships and collaboration within jurisdiction
- [ ] Establish partnerships and collaboration with other jurisdictions
- [ ] Seek leadership buy-in and stakeholder support
- [ ] Seek and secure program and/or equipment financing options
- [ ] Build technical expertise/personnel and increase workforce in telehealth
- [ ] Establish policies and procedures
- [ ] Start writing a state plan that includes telehealth
- [ ] Establish new telehealth-related department and/or program
- [ ] Re-visit administrative plans
- [ ] Conduct a needs assessment
- [ ] Establish clear telehealth reimbursement guidelines
- [ ] Other:

Evaluation Survey

What were some strengths of the workshop? *

Your answer

What additional support would you like to see occur to assist you in applying what you have learned? *

Your answer

What would you like to see in future Pacific Islands Telehealth Workshops/Webinars? *

Your answer

Other comments?

Your answer

Submit