



Background: Tripler Army Medical Center (TAMC) serves as the Department of Defense (DoD) tertiary medical care facility for the Western Pacific Military Treatment Facilities (MTFs) in Japan, South Korea, and Guam which have limited or no access to local specialty consultation services. The Pacific region spans 5 time zones and the International Date Line, making real-time teleconsultation impractical for cases that are non-urgent. This unique medical and geographic situation created the need for asynchronous teleconsultation capabilities between Western Pacific MTFs and TAMC.

System Description: PATH is a web-based, asynchronous (store-&-forward), HIPAA-compliant platform used for provider-to-provider teleconsultation and, when required, aeromedical evacuation case management. Hosted at TAMC, the PATH website enables remote providers to submit patient demographics, clinical data, and supplementary multimedia as dictated by the clinical scenario. Consultations are screened by physician managers at TAMC and forwarded to the appropriate specialists for input. If a specialist is not available at TAMC, other DoD providers can “electronically backfill” and provide consultative expertise as needed.

In a similar fashion, patient movement requests are coordinated by both administrative and clinical personnel to ensure efficient, cost-conscious case management. All case discussion is done on the web-based platform, with notification of new case activity via HIPAA-compliant e-mail.

Effectiveness/System Impact: The PacRim Teleconsultation Effectiveness Trial (Arch Ped Adol Med 2005) demonstrated improved healthcare access and quality with significant cost savings. A 2011 review of 1,000 consecutive pediatric teleconsultations showed similar improvements in quality, access, and cost (see box). In addition, visits to local network specialists are avoided reducing purchased care costs for Western Pacific MTFs. Other associated benefits include HIPAA-compliance, proper documentation in the patient’s electronic health record, workload credit for specialty consultants, budget incentives for telehealth utilization, specialist-directed testing, improved air-evacuation coordination, and provision of continuing education to remote healthcare providers.

Current Status: PATH is currently processing 3,500 cases/year from over 40 hospitals and clinics throughout the Pacific region. Over 45 different medical and surgical specialties are involved in both pediatric and adult teleconsultations. In 2014 the PATH team partnered with Portsmouth Naval Medical Center to provide tele-consultation services to Navy Medicine East via the Health Experts onLine Portal (HELP) system (<https://help.nmcp.med.navy.mil>). The PATH system is a recipient of the General Maxwell R. Thurman Award for Excellence in Telemedicine and Advanced Medical Technology.

The Pacific Asynchronous TeleHealth (PATH) System

*Review of 1,000 Pediatric Teleconsultations**

- Median consultation response time of 14.5 hrs (92% response <3 days, 97% < 1 week).
- Consultations: Diagnostic 72%, Treatment 21%
- Referring provider’s diagnosis and/or treatment plan modified in 74% following teleconsultation.
- PATH prevented air-evacuation or referral to local subspecialist in 12-43% of all cases.
- Cost savings of >\$200k/yr from unnecessary face-to-face visits following PATH consultation.
- 2.7 RVUs generated/case for consultant physicians.

CONCLUSIONS

- 1) PATH **improves access to care** in remote locales with 97% of consults answered within 1 week.
- 2) PATH **provides quality subspecialty care** to patients in remote locations where local expertise is unavailable or limited.
- 3) PATH **reduces costs** by at least \$200,000 per year by preventing unnecessary air evacuations and face-to-face consultations.
- 4) PATH **captures workload** for consultant providers.

**Mahnke et al, Telemedicine and e-Health, Jan 2011*

Contact Information

Website: <https://path.tamc.amedd.army.mil>

e-mail: usarmy.tripler.medcom-tamc.mbx.path-telemedicine@mail.mil

PATH Director: LTC Jennifer Mbuthia, MD (jennifer.w.mbuthia.mil@mail.mil)

Software Programmer: Keone Hiraide

System Administrator: Rohan Carpenter

