

The Pacific Center for Emergency Health: an anatomy of collaborative development and change - the Palau perspective

Abstract: Many Pacific Islands Countries (PICs) by their geographic location, isolation, and lack of resources, are at risk for both environmental and man-made disasters. Disaster management (DM) and mitigation is frustrated by the general underdevelopment of DM planning and lack of adequate emergency medical services (EMS) to deal with daily emergencies let alone large-scale emergencies and disasters. To address this, the U.S. Centers for Disease Control and Prevention (CDC) developed and implemented the Pacific Emergency Health Initiative (PEHI) to review and make recommendations regarding the current level of DM/EMS development of select PICs. As a practical next step, a collaborative demonstration project – the CDC - Palau Community College Center for Emergency Health - was established in the Republic of Palau with the purpose of providing training and technical assistance in DM/EMS development for the region. In September 2001 the Center conducted two simultaneous training programs addressing Public Health Disaster Planning (one-week) and pre-hospital First Responder Care (two-weeks). Sixty participants included public health planners, physicians, and fire and police officials from eleven PIC jurisdictions and representatives from the Secretariat of the Pacific Community, South Pacific Applied Geoscience Commission, and the Fiji School of Medicine. Eleven country and state public health disaster plans were initiated. Through CDC's PEHI additional Center training programs are planned through FY 2003.

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Environmental and man-made disasters are common among the Pacific Islands. From 1992 - 1996 natural and man-made disasters affected an annual average of 4.5

Adapted from a presentation at the 6th Asia Pacific Congress on Disaster Medicine, February 21, 2002, Fukuoka, Japan

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million Oceania residents.¹ Many of the Pacific Islands are vulnerable to the hazards of earthquakes, tsunamis, typhoons, effects of el Nino, rising sea levels, and other disasters. Potentiating these hazards are geographic isolation, struggling economies, and emergency public health and emergency medical services that are under-resourced and under-prepared. Among the U.S.-Associated Pacific Islands (USAPI)², the 1998 Institute of Medicine Report – *Pacific Partnerships for Health: Charting a Course for the 21st Century* – has documented the challenges facing USAPI health infrastructures including issues related to access of primary health care, training of its health workforce, and the adequacy of the maintenance and management of health care facilities.³ Linked to these observations is the unpreparedness of many of the USAPI jurisdictions to address both natural and man-made disasters.⁴

The purpose of this article is to demonstrate how local concerns within the Republic of Palau to improve both national emergency medical services and disaster readiness and response matured into a regional program leading to the establishment of a regional pilot technical assistance and training program to address these important issues (see Table 1).

In July 1999, Dr. Victor Yano, President of the Pacific Basin Medical Association (PBMA), Dr. Joseph Iser, then the Director, Office of Pacific Health, U.S. Public Health Service, Region IX, and others approached then Republic of Palau Vice President Tommy Remengesau, Jr., to discuss their concerns about Palau's readiness for dealing with daily emergencies and potential disasters. The Vice President's Office oversees the Palau's National Emergency Management Office (NEMO) and the National Emergency Committee. Drs. Yano and Iser pointed out that, like other Pacific Island countries and many developed nations, injuries, both

Table 1. Emergency medical services / disaster management development timeline in Republic of Palau

1. July 1999 - Organizational Meeting with Republic of Palau (ROP) Vice President Tommy Remengesau, Chairman, National Emergency Management Office
2. December 1999 - Western Pacific Regional Office / WHO EMS/DM Consultancy to ROP
3. February 2000 - CDC Pacific Emergency Health Initiative (Atlanta) / Center of Excellence for Disaster Management and Humanitarian Assistance (Tripler Army Medical Center, Honolulu) consultancy to ROP
4. February 2000 - 5th Pacific Basin Medical Association Meeting: "Disaster Management and Injury Control", Koror, ROP
5. February 2000 - Bi-Annual Pacific Island Health Officers Association Meeting, Koror, ROP
6. April 2000 - Workshop on Developing a National Injury Control Plan, Bureau of Public Health, ROP
7. October 2000 - CDC-funded Operational Planning Workshops for Public Health Disaster Planning and Emergency Medical Services Development, Palau Community College, Koror, ROP
8. July 2001 - CDC funds Palau Community College Center for Emergency Health
9. September 2001 - CDC and Palau Community College conduct two training workshops: 1) Public Health Disaster Management Planning and 2) EMS: Pre-hospital First Responder Training
10. September 11, 2001 terrorist attack strands CDC Emergency Response Team in Palau
11. May 2002 - Palau Center for Emergency Health at Palau Community College formally included as part of "Post 9-11" bioterrorism preparedness agreement between PIHOA and CDC: "Public Health Preparedness and Response for Bioterrorism Supplemental Cooperative Agreement".

accidental and non-accidental, were the leading causes of death in Palau between ages 1 year to 24 years. Additionally, they were concerned that - with the completion of both the new Japan-Palau Friendship Bridge linking the capitol island of Koror to the "big island" of Babeldaob⁵ and the new road ringing Babeldaob, there would be a dramatic increase in automobile crashes and pedestrian injuries which would overwhelm Palau's emergency medical services capacity to deal with such injuries. This prediction was based upon Palau's experience in 1975 when the dirt roads of Koror, the capitol island of Palau, were paved with asphalt. Within one-month automobile crashes contributed to the deaths of 30 Palauans - a dramatic event for a country with a population in 1975 of 15,000 people. Vice President Remengesau, who is now the Republic's seventh President, then charged Dr. Yano and his colleagues to do whatever it takes to assist the Ministry of Health to improve Palau's emergency response and disaster readiness.

Shortly thereafter, following the Vice President's lead, then Minister of Health Masao Ueda contacted the Western Pacific Regional Office (WPRO) of the World Health Organization (WHO) for assistance. Dr. Teodoro Herbosa, Director, Philippines General Hospital Emergency Room, was sent to Palau to provide emergency medical services (EMS) and disaster management (DM) consulting. Dr. Herbosa, a surgeon, had helped modernize Manila's ambulance service. For three weeks in December 1999, he assessed Palau's EMS/DM capacity and refereed Palau's annual Disaster Drill, which was coordinated by NEMO. The outcome WHO report

generally underscored Palau's need to improve how it deals with both daily emergencies and less frequent disasters.⁶

Building upon the WHO report, the Ministry then contacted Tripler Army Medical Center's Center of Excellence (COE) for Disaster Management and Humanitarian Assistance in order to explore how to find the resources to follow through with the WHO recommendations. The COE was then partially funded by the U.S. Centers for Disease Control and Prevention (CDC). Through the COE's Charter Director, Dr. Frederick Skip Burkle, the Ministry learned of CDC's new health program - the Pacific Emergency Health Initiative (PEHI) conducted by Dr. Mark Keim⁴. PEHI is a CDC pilot program whose objectives are to evaluate the preparedness of emergency operations planning for select Pacific Island countries (PICs). In 1999, with funds from the Office of Insular Affairs / U.S. Department of Interior, PEHI teams visited four PICs, made objective evaluations of emergency health and medical baselines, reviewed national-level hospital emergency operations plans, and assessed national public health emergency planning processes and plan contents.⁴

A plan comes together

In December 1999, the Palau Ministry of Health, the PBMA, and the Pacific Island Health Officers Association (PIHOA) teamed to invite PEHI to Palau to 1) build upon the initial WHO EMS/DM evaluation with view to identifying U.S. resources to assist Palau in its capacity building efforts, 2)

Table 2. CDC Pacific Emergency Health Initiative Team Recommendations for the Republic of Palau, February 2000⁷

1. Develop a Policies and Procedures Program for Operation of the Belau National Hospital Emergency Department
2. Institute a Quality Management Program for the Palau EMS System
3. Enhance Pre-Hospital Care Capabilities for Palau
4. Decentralize Emergency Care Services to a Community Based Model
5. Promote the Education and Training of the Emergency Healthcare Workforce
6. Develop Injury Prevention and Control and Preventive Health Services
7. Improve Coordination Within and Between Pacific Jurisdictions and the U.S.

work with the PBMA in conducting its regional 5th Annual Meeting – “Disaster Management and Injury Control”, 13-15 February 2000, Koror, Palau, and 3) formally brief PIHOA – the organization of chief health executives of the USAPI – in its February 2000 meetings in Palau. In response to the above invitation three members of the PEHI team visited Palau, conducted their evaluations, wrote two formal reports on Palau’s EMS⁷ and DM⁸ preparedness, gave the keynote presentation at the 5th PBMA meeting, and briefed the Ministers, Secretaries, and Directors of Health of 9 USAPI jurisdictions regarding PEHI’s mission and activities to date.

It is notable how in February 2000 the Palau MOH, the PBMA, and PIHOA collaborated to grapple with difficult issues on how to improve EMS/DM capacity not only for Palau but for the region. Also in attendance in these meetings were representatives from WPRO/WHO (including Dr. Herbosa), the Fiji School of Medicine, the University of Auckland Faculty of Medicine and Health Sciences, and the Secretariat of the Pacific Community. From both formal and informal out-of-meeting discussions, the local Palau efforts began to mature into a regional EMS/DM planning effort.

The Palau Reports and their outcomes

The PEHI Team, after reviewing Palau’s EMS/DM capacity made 7 key recommendations (see Table 2).⁷ To PEHI’s credit, it had the good common sense to not only acknowledge Dr. Herbosa’s initial efforts but also to build on WHO’s work with view to integrating its recommendations into next steps operational planning.

The Palau Community College Center for Emergency Health⁹

As a follow-up in April 2000 the Palau MOH formally requested PEHI to begin the planning process necessary to fully develop the recommendations contained within the (CDC) assessment reports. To this end two Operational

Planning Meetings were scheduled and funded by CDC for October 2000 in Palau. The Meetings’ goals: to develop operational plans for a pilot project in Palau that would become the first implementation of Phase II of PEHI: Training and education of the health & medical workforce⁹. This would be done by establishing a pilot “Center for Emergency Health” project, which would become a regional training center for EMS and DM development in Palau and for the Pacific Basin.

In anticipation of the these planning meetings the Palau stakeholders, which included the Ministries of Justice and Health, NEMO, the Palau Chapter of the Red Cross, and Palau Community College (PCC), met in a collaborative effort to organize the Operational Planning Meetings which would be moderated by Dr. Keim at Palau Community College. Over eight working days two separate operational plans – one for public health disaster management planning and another for EMS development planning – were completed. From these

meetings developed the overall consensus and support by the Palauan stakeholders for the need for a regional Center for Emergency Health, which would function as a focus for technical assistance and training for regional EMS and DM development in Micronesia. The plan: The Palau Community College Center for Emergency Health would serve as an administrative and educational focus for training of EMS and emergency public health DM matters. The objectives of the curriculum would be to train-the-trainers of select Pacific island nations so that they return to their home countries and through the multiplier effect continue to sustain Center educational efforts. The Center would also become the seat of a region-wide project for technical assistance and support in developing public health disaster plans for each of the six US associated jurisdictions. The development of a National EMS Systems would require an in-country, hands-on approach to medical-surgical education in the form of skill workshops. The term of this pilot program would be two years.

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The PCC Center Training and 9-11

In July 2001, Dr. Keim was able to secure a formal commitment from CDC to fund the PCC Center for Emergency Health. The Center then conducted its first two training programs on the PCC campus in September 2001, which involved over 60 participants from 11 PIC jurisdictions. A one-week program on Public Health Disaster Planning trained over 30 participants in disaster management planning. As Dr. Keim observed, it was the first time ever that 11 PIC jurisdictions developed public health DM plans for their respective countries. A two-week program trained over 30 physicians, nurses, firemen, police, and Emergency Medical Technicians in pre-hospital First Responder techniques. The two training programs also included observer-participants from the Secretariat of the Pacific Community, South Pacific Applied Geoscience Commission, and the Fiji School of Medicine. During the Center training, the tragic events of 9-11 occurred and, because of airline cancellations, Dr. Keim and his colleagues, who were part of the CDC Emergency Response Team, were stranded in Palau. After several days the team received orders not to deploy to New York City, 10,000 miles away, but to complete the Center training activities.

Post 9-11 – The Pacific Center for Emergency Health

In the chaotic and rapid events after the tragedy of 9-11, the CDC funding for the Center and even the Center's name has changed. In recognizing the Center's achievements, PIHOA included the Center as part of its regional grant application to CDC¹⁰. The now *Pacific Center for Emergency Health*, still to be organizationally based at the Palau Community College campus, will include the discipline of bioterrorism as part of its EMS and DM curriculum for training and technical assistance responsibilities. Through PEHI the Center will participate in full range of training programs both in Palau and throughout the USAPI FY 2003.

Through the local and regional recognition of the need to improve EMS/DM services, hard work, fortuitous timing, and WHO and CDC assistance, the Pacific Center for Emergency Health was conceived and delivered in Palau. This article has attempted to put a human face on how the Center was established. It is through the collaborative efforts of many

that the Center can
a model program to
medical services,
bioterrorism needs

Acknowledge

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and Joel Selanikio, a
Tellei, Hazime Tel
Soares, Eddie McCa
Jennifer Yano.

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