

JOURNAL

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The AMEDD in Japan



U.S. Army Medical
Department Activity-Japan



Center for Health Promotion
and Preventive Medicine-Pacific



U.S. Army
Dental Activity-Japan



Japan District
Veterinary Command

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U.S. ARMY MEDICAL DEPARTMENT
A Professional Bulletin for the AMEDD Community

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Perspective

Focus on the AMEDD in Japan

With today's increasingly unstable world situation, it is reassuring to know that the U.S. Army Medical Department (AMEDD) has activities positioned across the globe to provide soldiers and their families with the highest possible quality medical care. These organizations operate with little fanfare; however, they are essential links in the worldwide chain of military medical health care and the vital role they play in maintaining force health protection cannot be overstated. In this edition of the AMEDD Journal, we're spotlighting the United States Army Medical Department Activity-Japan (USAMEDDAC-Japan) and the diversity of medical responsibilities the command encompasses within the Pacific Rim.

The USAMEDDAC-Japan began its long history as the 128th Station Hospital, the first U.S. Army hospital established in the country; the facility began accepting patients in October 1945. It served with distinction during the Korean and Vietnam conflicts. By 1966, it had been enlarged to 500 beds and functioned as the Army Burn Center of the Far East. The hospital closed in 1979 and became an ambulatory care clinic on the Camp Zama compound. It was redesignated USAMEDDAC-Japan in 1983 and currently serves U.S. Army-Japan and the 9th Theater Support Command.

In this era of decreasing medical resources and increased operational tempo, providing quality medical care to our soldiers and their dependents and beneficiaries has become an increasing challenge. As with other treatment facilities outside the Continental United States, there is a growing reliance on local and other military resources. To provide optimal outpatient services with a limited number of providers, a contract was arranged with Japanese host nation general medicine and major care facilities to provide after-hours support such as emergency services. Another agreement with larger U.S. Air Force and U.S. Navy medical facilities in the country, provides housing and maternity services for expectant mothers. These are just two of the accords that connect America and Japan in making quality health care available.



Brigadier General Daniel F. Perugini

I believe you'll enjoy reading the articles selected for this issue and gaining a new insight into the unique, and sometimes demanding, situations faced by the USAMEDDAC-Japan staff on a daily basis:

- The AMEDD's current operational environment in Japan is the subject of Colonel Anthony Ettipio's introduction to this issue. In his article *The Japan Theater of Operations: An Overview by the U.S. Army-Japan Surgeon*, Colonel Ettipio, USAMEDDAC-Japan Commander and U.S. Army-Japan Surgeon, gives the reader an in-depth overview of the AMEDD role in support of cooperative medical activities and initiatives. This is an interesting and informative look at how our medical soldiers are working in a host nation setting.

- Two separate articles address the unique and environmental and medical threats that exist in the Pacific Command as well as the health promotion and preventive medicine services that deal with these issues. *Center for Health Promotion and Preventive Medicine-Pacific: Readiness Through Health* presents a broad-brush look at the diversity of U.S. Army CHPPM-PAC missions and responsibilities, while *The Deployment Occupational and Environmental Health Surveillance Program in the Pacific Theater* details the ongoing efforts to promote and sustain the health of our deployed forces. Both articles provide valuable information concerning preventive medicine methods and equipment.

- The authors of *Role and Mission of the U.S. Army Dental Activity-Japan: A Historical Perspective* highlights the history of dental care to soldiers and beneficiaries in the Japan Theater since the end of World War II. They also discuss the challenges of delivering quality dental treatment and education across a broad geographical area. This article is of particular interest to those anticipating reassignment to the Pacific Rim area.

- Army veterinarians' professional services are employed in a wide variety of mission support roles. The Commander of the Japan District Veterinary Command outlines their multiple missions and responsibilities to soldiers and their families as well as collaborative projects, military missions, and specialized deployments throughout the region. His article, *Japan District Veterinary Command: Knowledge and Integrity* addresses these initiatives and provides additional insight into the scope of veterinary capabilities.

- The USAMEDDC-Japan's integration of a smallpox response into the biological threat scenario of a tri-service mass casualty (MASCAL) training exercise initiative is chronicled in *Integrating Smallpox Response into a MASCAL Exercise*. The valuable information contained in this article emphasizes the importance of being prepared for a bioterrorist attack.

- The Special Medical Augmentation Response Team-Preventive Medicine (SMART-PM) is the subject of an article discussing possible environmental health threats encountered by Department of Defense personnel in natural disasters or during humanitarian assistance missions. *The Role of the SMART-PM in the Pacific* points out that the team is a key participant in planning for future operations and exercises.

- New technology for the early identification of disease vectors and biological weapons on the battlefield is presented in *Deployable Field Nucleic Acid-Based RT-PCR and PCR Assays for Detection of Pathogens from Arthropods*. This article details the development of the

process employed to detect a wide variety of mosquito-borne illnesses and reinforces the criticality of disease surveillance, especially in areas where deployed troops are operating.

- *Closing an Urgent Care Clinic: A Retrospective Analysis of Organizational Change* is an in-depth and informative retrospective look at utilizing Kotter's "Eight-Stage Process of Creating Major Change" management model to effect a significant and successful organizational change and optimize the balance between resources and requirements.

- Integrating the health care services of two diverse cultures to enhance emergency services is detailed in *Reflections on Leadership Responsibilities - Creating an Atmosphere of Change*. The author emphasizes the need for new ways to employ civilian assets in an era of reduced resources and details the restructuring process in which these services were provided to the community. This is an excellent example of how a carefully planned and executed cultural blending of knowledge and experience can occur and benefit everyone concerned.

I'm extremely proud of the important work we do in the AMEDD, regardless of our location around the world. Each of the articles in this special edition offers a different look at USAMEDDAC-Japan and at the successes of its medical soldiers and units to sustain our commitment to quality health care. I look forward to highlighting more AMEDD agencies and organizations in future issues of the Journal.

The Japan Theater of Operations: An Overview by the U.S. Army-Japan Surgeon

**Colonel Anthony M. Ettipio, AN
U.S. Army-Japan Surgeon
Commander, U.S. Army Medical Department Activity-Japan**

Japan and the United States, in times of peace and war, have shared a truly unparalleled history. Today, both continue to coordinate the most significant ongoing bilateral military-economic partnership in the world. From the beginning, America's relationship with Japan has always had a critical military dimension that continues, with undiminished significance, to this very day. Our Army has been in Nippon, the "Land of the Rising Sun" since World War II (WWII), and the Army Medical Department (AMEDD) today, from Japan, orchestrates a critical role in the overall Western Pacific-Asian Theater, underpinning the defense of our Nation and our key Allies. Simply put: there can be no credible U.S. military deterrent presence in western and South Asia – without our amazing AMEDD. Out here, the Navy, the Air Force, and the Marines all utilize and often depend upon many of our time-sensitive capabilities.

Japan-U.S. Engagement

At the peak of the Cold War in the 1980s, Yasuhiro Nakasone, then Prime Minister of Japan, declared that Japan would serve as an "unsinkable aircraft carrier" in the Pacific. This has indeed been the case since 1945 and is every bit as true and crucial to both of our nations today. Japan and America, through vigorous bilateral engagement diplomatically, militarily, and economically, together ensure that freedom and democracy remain firmly anchored in the western Pacific. It is from the U.S. Army-Japan/9th Theater Support Command (TSC) at Camp Zama (within the Tokyo-Yokohama metropolitan complex on the island of Honshu), that the AMEDD underpins military operations throughout the Asian-Pacific and Indian Ocean regions.

Official U.S.-Japan engagement began with the U.S. Navy, when Commodore Matthew Calbraith Perry, in 1853-54, pointed the cannon of his Black Ships toward the



Tokugawa Shogunate, demanding that Japan open its ports in support of American Seafaring interests. Seeing and fearing the obviously superior destructive power of Perry's vessels, the leaders of Japan acceded – no insignificant event – as Japan had been deliberately closed continuously to foreigners for 250 years prior. The Treaty of Kanagawa was signed in 1854, between the Empire of Japan and the U.S.

The subsequent effects of Japan's industrialization, commencing with the Meiji Restoration, the modernization and of its military, and its decision to extend its national interests beyond its historic borders deeper into the Asia-Pacific Region, with the surprise attack on Pearl Harbor, led to, consequentially, the U.S. Military's occupation and continuing operations within the Japanese archipelago – from Hokkaido to Okinawa. So we find ourselves where we are today, as a result of the attack on Pearl Harbor, and as well, the first and last wartime use of nuclear weapons by the U.S. (or any other nation), precipitating the formal surrender of Japan in Tokyo Bay, upon the deck of the battleship Missouri, on 2 September 1945.

The U.S. Army and the AMEDD have been in Japan since the end of WWII, and our history is long, proud, and

storied here at the western edge of the Pacific Rim. General Douglas MacArthur reigned as an American Caesar serving as the Supreme Allied Commander. It was from his General Headquarters in Tokyo that he initiated and led the defense of South Korea after North Korea and then China attacked across the 38th parallel. The headquarters of the AMEDD in Japan can be found today at U.S. Army-Japan Headquarters, Camp Zama, Japan – formerly the “West Point” of Japan, after having been inaugurated by Emperor Hirohito in 1937.

The object of this “AMEDD in Japan” issue, however, is not to convey the history of our two countries; rather, it is to depict, briefly, within the context of history, the ongoing unique missions and challenges that define what, how, and where we do what we do. This issue, albeit in only a very small measure, provides some insight into what we, the AMEDD in Japan, execute routinely, or have, of late, expended our time and energies upon, to position the AMEDD in Japan for the future.

Today’s Operational Environment for the AMEDD in Japan

Four great AMEDD flags fly in support of U.S. Army-Japan: USAMEDDAC-Japan, USACHPPM-PAC, the Japan Veterinary District Command, and DENTAC-Japan. Today’s AMEDD Mission in the Western Pacific Theater, one that internally supports and proceeds from Japan, is probably best viewed from the orientation of U.S. Army-Japan/9th TSC Headquarters.

The U.S. Army in Japan is a Major Subordinate Command of U.S. Army Pacific, and a Service Component of U.S. Forces-Japan (USF-Japan), providing support to the Army and other services, stationed or deployed to the western United States Pacific Command (PACOM) area of responsibility (AOR). The Commanding General, U.S. Army-Japan, and the 9th TSC, is responsible for bilateral planning and exercises with the Japan Ground Self-Defense Force (JGSDF) and theater-level logistics in the Western Pacific, less Korea. The U.S. Army-Japan manages 17 installations located throughout Japan with a \$400 million plus operating cost, 80% of which is funded by the Government of Japan. The U.S. Army-Japan’s key focus is to support U.S. Army current and future enhanced regional cooperation activities with the JGSDF for the

execution of the full spectrum of military operations in Japan and areas surrounding Japan – simply stated: military engagement. The U.S. Army-Japan leads or participates in over 140 regional, joint, bilateral and U.S. exercises each year. The U.S. Army-Japan ensures installation operations that support beneficial host nation relations, for soldiers and their families.

In order to maintain the balance of regional stability, the Japan operational environment is one in which are located some 54,000 active duty U.S. military forces in Japan, serving with some 267,000 Japanese Self-Defense Forces personnel. Seven of 10 of the world’s largest Armies are located in the Asia-Pacific Region, which has today over 60% of the world’s population, almost 40% of the Global Gross National Product (Japan’s economy is larger than all of Asia’s combined and second in the world only to the U.S.), and the most potentially consequential flashpoints and international instabilities, to include the two Koreas, and Taiwan-China. The national interests and military powers of the U.S., China, Russia, North Korea, South Korea, and Taiwan all converge in east-northeast Asia. The Nuclear powers of India and Pakistan are mere hours of flight time away. The Indian Ocean area, the Gulf States, and the southwest Asian conflicts are all within the supporting arc of Japan-based military assets. In a historic shift from strict interpretation of Article 9 of the Japanese Constitution (one which General Douglas MacArthur’s staff architected with the Japanese), Japan today logistically supports ongoing U.S. military operations in the Indian Ocean by providing refueling support via the Japan Maritime Self-Defense Force.

Japan is critical to Asia-Pacific operations because of a key reality: “the tyranny of time and distance” implicit to the vast expanses of the Asia-Pacific AOR. Japan is coexistent within the same geographic and time slices as it’s mission-focused region: the Asia-Pacific AOR. Its U.S.-based headquarters are, simply put, hobbled by time and space displacement. Japan is, simply, unto itself. It has no corollary anywhere on the globe. All South and East Asian nations are merely a few short hours of flight time away – making Japan (since WWII) both a natural platform for, and a bulwark of, democracy.

The U.S. Army-Japan/9th TSC logistics mission is achieved via an active/reserve component integrated organization which ensures and encompasses command

and control activities (intelligence and aviation equipment and communications) as well as the transportation mission via utilization of two strategic ocean terminals on Honshu and Okinawa, support for the 3d Marine Expeditionary Force, and responsibilities for the Common User Land Transportation proponenty and management; The 9th TSC ensures Host Nation Support with all five Armies of the JGSDF, and liaison to the Ground Self-Defense Staff Office. Petroleum/fuel Operations include storage of some 56 million gallons, and delivery during the 90s, of some 92 million gallons of fuel to Kadena Air Force Base, on Okinawa. Over 100 miles of distribution pipeline accomplish this ongoing mission. The 9th TSC also supports U.S. Army-Pacific Humanitarian Assistance Program, which has donated some 5.2 million dollars of usable goods to eight different countries in the Asia-Pacific AOR. Japan is the Arsenal of the Pacific as well; ammunition storage capacity is at 61,803 short tons. Army pre-positioned stocks at Sagami Depot cover some 11 million sq ft of storage space, which includes two Field and two General Hospitals. Operational project stocks supporting the entire AOR are maintained, which include Force Provider Modules, Inland Petroleum Distribution Systems, Containerized Systems, Bridging Sets and much more beyond the scope of this introductory article. The U.S. Army-Japan and the 9th TSC AOR also include significant Army Theater Intelligence capacities and impressive Signal and Strategic Communications capabilities linking PACOM, CENTCOM, USFK, EUCOM, and SOCOM.

Japan has been the most cost-effective location in the world to garrison a soldier. In the bilateral quest to achieve the promise of the Theater Security Cooperation Program, for every \$16-18 million of U.S. Congressional Appropriations, the Government of Japan, as part of its Host Nation Design and Construction activities, allocates between \$750-800 million for U.S. installations. Engineering projects from housing units to fitness centers to runways, support our servicemen and women. The Government of Japan also provides, via its fully funded Master Labor Contract (MLC) personnel, essentially a “free” (Japanese national) labor force. Depending on the unit, AMEDD Japan units can approach almost 50% MLC staffing. Add in that all the installations in Japan provide U.S. forces “rent-free” basing in the safest and most secure location in the world and it is not hard to understand why the Japanese are allies without peer.

The U.S. Army-Japan Surgeon’s Role in Support of the AMEDD in Japan

Prior to 1996, the AMEDD in Japan was represented by USAMEDDAC-Japan, a subordinate unit of U.S. Army-Japan. Dental, Veterinary, and Preventive Medicine/Health Promotion assets were all, variously, part and parcel of this overarching medical unit. During the 1995-1996 time period, USAMEDDAC-Japan was reflagged as a subordinate unit of the Pacific Regional Medical Command, and the Center for Health Promotion and Prevention-Pacific and the Japan District Veterinary Command were activated along with DENTAC-Japan – all were clearly differentiated as distinct AMEDD units.

The USAMEDDAC-Japan Commander has responsibilities for JCAHO standards-based direct care and patient regulation (for all enrolled and emergent SOFA personnel, from the Army, Navy, Air Force, DODDS, and U.N.-affiliated Embassies) throughout Tokyo and the Kanto Plain region. These include maintaining ongoing relationships with 36 Japanese civilian hospitals, one JGSDF Hospital, and Department of Defense (DOD) facilities at Yokosuka Naval Hospital, 374th Medical Group, Yokota Air Base, Okinawa, (Lester Naval Hospital), Hawaii (Tripler Army Medical Center), San Diego, CA, (Balboa Naval Medical Center) and further beyond to CONUS-based military and civilian institutions.

Additionally, the USAMEDDAC-Japan Commander serves in a dual-hatted role which includes unique responsibilities as the U.S. Army-Japan Surgeon, in accordance with U.S. Army-Japan Regulation 10-1, *Organization and Functions*. Specified roles and responsibilities as the Army Surgeon in a Theater of Operations, for the Army Service Component Command of USF-Japan, are outlined and prescribed by FM 8-10, *Health Service Support in a Theater of Operations*, FM 8-55, *Planning for Health Service Support*, and although not officially, doctrinally applicable to echelons above corps, basically outlined in FM 101-5, *Staff Organization and Operations*. The U.S. Army-Japan Office of The Surgeon has active duty military, Department of the Army Civilian, and Japanese national staff assigned and also includes Individual Mobilization Augmentee personnel – all of whom report to and support the Medical Operations and Plans Division. Prime functions and missions of the Office of the Surgeon and the Medical Plans and Operations

Division included synchronizing, representing, and advocating for all AMEDD Commands and all AMEDD personnel, to include those who are embedded in nonmedical tables of organization and equipment units. The U.S. Army-Japan Surgeon, as a special staff officer, directly advises and guides the Commanding General, U.S. Army-Japan, with regard to all Health General, U.S. Army-Japan, with regard to all Health Service Support initiatives and Force Health Protection Programs, and ensures that among the principal General (G) staff of U.S. Army-Japan, as well as with unit commanders at all levels, that health services support actions and activities remain prominent in their minds. The U.S. Army-Japan Surgeon serves as executive agent for international, inter- and intra-service, and inter-departmental medical support agreements. Coordination with USACHPPM-PAC, and the Dental and Veterinary Commands is routine, as issues and missions arise that require a combined team response, especially medical support for ongoing exercises. A ONE-AMEDD psychology pervades and drives our collective resources.

At U.S. Army-Japan, because of the log-heavy nature of the 9th TSC mission, we work closely with the entire G-staff, G4, and the G1, who is a natural partner in ensuring that our people-focused programs are active and on track – such as the Health Promotion Council and the Suicide Prevention Task Force. Deployment Health efforts are coordinated with the G3, in order to track and capture (medically document) departing and returning personnel. Developing, preparing, coordinating, and maintaining health service support plans, from Okinawa to Honshu - to include CBRNE-focused responses – for all command-involved bilateral and U.S. exercises, emergencies, contingency operations/noncombatant evacuation order, and mobilizations/reception staging and onward integration – are fundamental to our mission. Recently, on 7 August, the U.S. Army-Japan Surgeon's office, after a year of instigation, executed, with the entire command and Garrison reacting as partners, the first known DOD Smallpox Response exercise in the Pacific AOR, as required of all Combatant Commanders. The Surgeon's staff coordinates modernization of the DEPMEDS equipment sets and manages issues relating to APS4 medical equipment and supplies stored in Japan with the U.S. Army Medical Material Agency. As a service

component of USF-Japan, the U.S. Army-Japan Surgeon's Office coordinates issues and initiatives with USF-Japan and USNF-Japan. As always, proponentcy for developing policies, programs, and procedures regarding class VIII material and all medical missions is inherent. The Surgeon's Office also maintains very active liaison, to include (alternating yearly) sponsoring and participating in the annual Bilateral Medical Conference, with the JGSDF Surgeon General and his staff at the Japan Ground Staff Office, as well as with the Commandants and Directors of the JGSDF Medical School and Hospitals, both in Tokyo. Official social commitments, with and without spouses, are quite numerous indeed, with medical counterparts, always two-star and above, and all other JGSDF G-staff/ U.S. Army-Japan bilateral engagements. The U.S. Army-Japan Surgeon also travels annually with the JGSDF Surgeon General to Association of Military Surgeons of the United States, where the Medical Command and Pacific Regional Medical Command Commanders are met and dialoged with. Operationally, U.S. Army-Japan AMEDD soldiers and civilians ensure that 6-10 Combat Lifesaver Courses are executed annually, both on Honshu and Okinawa, and that Army Medical Liaison Services are performed at Lester Naval Hospital on Okinawa. Influenza, Anthrax, and Smallpox vaccines are all coordinated and provided to appropriate and screened personnel, with input into MEDPROS. In summary, it should suffice to say that it ensures medical asset synchronization and services; plans for contingencies; advises regarding health threats; and provides visibility of initiatives, services, and programs for the U.S. Army-Japan Commander. In so doing, the AMEDD in Japan can then, indeed, fundamentally execute across hundreds, even thousands of miles, at the direction of its four Commanders.

In the final analysis, it is Japan that has been among, if not arguably, the staunchest of Allies for America – as evidenced by its unwavering support since WWII, in the Korean, and Vietnam conflicts, and in the more recent Persian Gulf and ongoing Afghanistan and Operation Iraqi Freedom efforts. It is Japan that is inextricably connected to the U.S. military and our great Army; and it is the AMEDD – from Japan – that ensures that military forces can be inserted and sustained in the defense of Liberty and Freedom throughout this half of the world.

Center for Health Promotion and Preventive Medicine-Pacific: Readiness Through Health

COL Ross D. LeClaire, VC, USA†

Originally established on Okinawa in 1968 as the U.S. Army Pacific Environmental Health Service, the Unit was redesignated the U.S. Army Center for Health Promotion and Preventive Medicine-Pacific (USACHPPM-PAC) in 1995. As USACHPPMs forward-deployed element in the Pacific Theater, USACHPPM-PAC provides health promotion and preventive medicine leadership and services to counter environmental, occupational, and disease threats to health, fitness, and readiness in the geographical area of operations (AO) of the U.S. Pacific Command (PACOM). The general AO includes Japan, Okinawa, South and North Korea, Philippines, Thailand, China, Mongolia, countries of Southeast Asia, Madagascar, Hawaii, Alaska, and the Aleutian Islands. With the integration of the U.S. Army Medical Department Activity-Japan Preventive Medicine Services in January 1999, the USACHPPM-PAC now provides installation-level support to all U.S. Army-Japan installations, as well as the regional support in the entire Pacific Theater.

The major areas of telephonic and field consultations to the garrison, field, and deployed commanders include: industrial hygiene, occupational and community health, environmental health engineering, medical entomology, field preventive medicine, health physics, medical chemical, biological, radiological, nuclear environmental (CBRN), and laboratory sciences. We also provide or facilitate in these areas. In addition, we support the U.S. and Japan Defense Cooperation Guidelines and U.S. Army Pacific's Expanded Relations Program, in support of PACOM Theater Engagement Plan by actively engaging with military medical elements of the various Nations throughout the Pacific region.

The USACHPPM-PAC has three technical divisions responsible for mission service support. The Envi-

ronmental and Occupational Health Sciences Division provides expertise in recognition, evaluation, and control of chemical and environmental hazards and physical stressors. Programs include Environmental Health Engineering; Health Physics and CBRN; Industrial Hygiene; and Deployment Occupational and Environmental Health Surveillance. The Environmental Laboratory Division provides ISO 17025 accredited analytical chemistry services to installations and units in the AO to ensure environmental and occupational health protection. In addition to analyses, services include consultation related to sampling and analysis, analytical training, and quality assurance oversight of laboratory operations. The Preventive Medicine Division provides health promotion and preventive medicine leadership and services to counter environmental, occupational, and entomological disease threats in order to optimize the health, fitness, and readiness. Programs include Community Health Nursing; Health Promotion and Wellness; Occupational Health; Epidemiology; Environmental Health; and Medical Entomology.

The articles presented here are representative of the diverse missions the USACHPPM-PAC supports. For those areas where expertise is not available in the AO, mission services are augmented by technical expertise from the directorates of the parent organization, USACHPPM-Main, Aberdeen Proving Ground, MD. The unit motto, "Readiness through Health" reflects the core purpose of the organization.

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Japan District Veterinary Command: Knowledge and Integrity

LTC Kelly G. Vest, VC, USA†
MSG Benard Thomas††

Introduction

Since 11 September 2001, the importance of security on all fronts has been evaluated in many new areas. Nearly every part of American life, from transportation, agricultural industry, business, and utilities is now under scrutiny. There is a new sense of vulnerability. Americans face the possibility of large-scale attacks while at home or at work or even in the foods and drinks that we consume. It is also possible that U.S. military members residing overseas experience additional threats to their health and safety.

The focus on public health, preventive medicine, and animal care is an important mission of the Japan District Veterinary Command (JDVC). Its history extends back almost 60 years to the time of World War II. Many remain unaware of the historical role of military veterinarians. Since the time of the Civil War, before canning and refrigeration when food tended to follow the Army on hooves, military veterinarians have been ensuring the safety of the food supply. Their training focuses on diseases that affect animals, but also important diseases and conditions that affect humans through food, water, and the environment. The anthrax attacks of 2001, typically an animal disease, reinforce the vulnerability of humans to potent animal diseases. While this event was exceptional, diseases are transmitted to people every day through food, water, and other media that originated with animals. Examples include salmonella, hookworms, and enterotoxigenic *E.coli*.

History

The Army Veterinary Service in Japan had its start on 7 August 1945 when Veterinary Corps personnel were included in the Civil Affairs Division of the U.S. Armed Forces Pacific as part of the invasion contingency force. Between 1945 and 1959, Veterinary table of organization and equipment (TOE) units were scattered throughout

Japan providing nation assistance and performing the same food safety and animal medicine functions performed by the JDVC today. In their post-war mission, these veterinary units played a key role in the revitalization of Japan's veterinary public health programs. By 1959, TOE units were phased out in Japan. The veterinary units in Japan then became a subordinate table of distribution and allowances unit under U.S. Army Medical Command-Japan, and a functional part of U.S. Army-Japan. Veterinary Service elements were briefly designated as a separate command in 1969, and again in 1983, known as Veterinary Detachment, Japan.

On 15 December 1995, Veterinary Service Support District-Japan was activated as a subordinate command of the Pacific Veterinary Service Support Area of U.S. Army Veterinary Command. In March 1997, the unit was redesignated as the JDVC.

The JDVC provides centralized command and control over veterinary assets supporting Department of Defense (DOD) installations, ships, and deployed forces in Japan, Taiwan, and Hong Kong. The JDVC provides veterinary support to all DOD installations/facilities in Japan and Okinawa and maintains a strong working relationship with Government of Japan public health and regulatory agencies. The JDVC has more than 100 people providing support at more than 70 separate duty sites on 29 Army, Navy, Air Force, and Marine Corps installations. They also monitor 58 commercial food establishments that supply subsistence to the DOD. The JDVC is responsible for food safety and quality assurance, animal disease prevention and control, and full veterinary care of government-owned animals and the pets belonging to military members.

Mission in Japan

The vision of the JDVC is to promote public health, ensure food quality, provide definitive animal medical

care, and protect the interests of the U.S. government with professional veterinary services. There are three primary missions of the JDVC. The first mission is to ensure food safety and quality. The second is to provide high quality, comprehensive health care to military working dogs and privately-owned pets to promote the safety, security, and quality of life for military members and dependents (Figure 1). The third mission is to provide veterinary support for regional military exercises and nation assistance and civic action missions. The JDVC has an additional challenge in that nearly 70% of our personnel work on non-Army installations, far from the unit headquarters and Army personnel support services.



Fig 1. SGT Hunter treating military working dog.

Food Safety and Security

The JDVC is on the front lines of food quality and safety. The procurement of food commodities continues to evolve. Local and regional food producers supply U.S. Forces to a much greater extent than before. Military operational rations in large numbers are stored as war reserves. The quality and safety of these rations is another important part of the veterinary mission.

The soldiers of the JDVC are involved daily in performing food and beverage identity, quality, and condition inspections at 63 military facilities. These inspections include fresh fruits and vegetables, dairy products, fresh meats, seafood, semi-perishables, and delicatessen items (Figures 2 and 3). All subsistence classes are sampled on a regular basis and laboratory tested to check for contamination or adulteration. Additionally, sanitary inspections are performed on these same facilities to ensure that proper health measures are observed in the

storage, handling, preparation, and sale of food.



Fig 2. SPC Ellison examining Commissary produce.



Fig 3. SGT Leary and SPC Ellison performing an inspection on fresh beef.

The JDVC is responsible for 58 commercial food establishments that are listed in the DOD Directory of Sanitarily Approved Food Establishments. We are responsible for dairy plants, ice plants, bakeries, bottled water, processed fresh fruits, vegetables, and eggs throughout Japan, Taiwan, and Hong Kong. The JDVC also has been tasked to inspect food plants in other Asian countries. The veterinary officers are responsible for auditing these facilities on a quarterly or semi-annual basis and ensuring that health and manufacturing guidelines are followed. The JDVC also inspects 900,000 cases of operational rations annually throughout Japan.

Cook-Chill Plant

A unique aspect of the JDVC mission is our support to the U.S. Marine Corps Cook-Chill plant. In 1999, the

Marine Corps embraced new technologies in food preparation by establishing this facility on Okinawa. They prepare high quality and varied heat-and-serve entrees for distribution to ships and dining facilities throughout the region. There are many advantages to this process, and some important hazards. The JDVC were key players in the development of hazard analysis controls and measures for the plant and continues to monitor the operation.

The cook-chill process incorporates the packaging of cooked food products in bags with reduced oxygen content. The food packages are placed in a cold-water bath, quickly decreasing the temperature of those packages, hence chilling the product to maintain the flavor and condition of the food. Food products are prepared and packaged daily according to the requirements of the master menu. These items are programmed and prepared in accordance with the guidelines specified in the Food and Drug Administration's Food Code for reduced oxygen packaging.

Ten Marines and 18 civilian employees process about 12,000 meals per day. This includes a variety of roast, stews, steaks, sauces, pastas, and processed vegetables. The finished product supports eight dining facilities and 11 Marine Corps Community Service clubs on seven different bases throughout Okinawa and Japan. Their plans are to expand their client base to other agencies such as the DOD Schools, Army Air Force Exchange Service, Morale Welfare Recreation, and Defense Supply Center-Philadelphia.

The concept of cook-chill provides many advantages to the Marine Corps. Some of these advantages are reductions in man-hours, waste, electrical requirements, and equipment wear. It increases flexibility and the consistency and quality of the product. In 2008, the cook-chill facility will open the doors to a new facility. This facility will feature the newest innovations in food processing equipment and will expand their capability to meet the needs of the Marine Corps well into the new century.

Animal Care and Zoonotic Disease Prevention

The military has a long history of using animals for military operations, recreation, and research. We maintain seven veterinary treatment facilities (VTF) located at one

Army, three Air Force, one Marine, and two Navy installations in Japan. Presently, another VTF is being built on Camp Foster in Okinawa.

Additionally, in concert with servicing the working dogs, full-service veterinary support and veterinary health care access is provided to all animals that are owned by DOD dependents and beneficiaries that reside throughout Japan (Figure 4). On most installations, this includes 24-hour veterinary emergency care. Extensive capabilities are available to include radiology, surgical care, inpatient capabilities, and laboratory analysis. The JDVC operates the largest military VTF in the world. The Kadena Air Base Veterinary Treatment Center provides extensive veterinary service to its DOD beneficiaries and military members. With a staff of six veterinarians, this facility runs two 8-hour shifts daily to meet the outpatient, inpatient, and surgical load as it serves over 10,000 pets and military working dogs. The Center provides the state of the art veterinary hospital with full laboratory diagnostic capability. The Kadena VTF acts as the consulting and referral center for all the VTFs in the JDVC as well as the other two districts in the Pacific Region. The Chief for the Okinawa Branch serves as the primary instructor for all veterinary officers assigned to JDVC for surgical and internal medicine training.



Fig 4. SPC Kindelberger treats a soldier's dog.

An additional hat that falls on the JDVC is the interface with the Government of Japan as the Commander serves on the Status of Forces Agreement subcommittee. Through this responsibility, the JDVC jointly assists the Japan Ministry of Agriculture and Foreign Affairs in the importation, inspection, and quarantine of animals, as well as the coordination and

joint inspection of all fresh fruits and vegetables at the respective ports of entry. Additionally, the JDVC addresses all questions that may pertain to zoonotic disease issues. Recent issues have included bovine spongiform encephalopathy and Japanese meat products, avian influenza and imported U.S. poultry products, and West Nile virus.

Exercise Support

The JDVC receives requests to support military missions, exercises, and deployments throughout the Pacific Region. We routinely send officers and soldiers in support of Cobra Gold, Balikatan, Tandem Thrust, Crocodile, CARAT, and many smaller exercises. We ensure that the local food, water, and ice procured for these exercises is safe and high quality.

During fiscal year 2003, the JDVC supported the local Japanese-U.S. bilateral exercises Orient Shield, Yama Sakura, and North Wind. Additionally, the U.S.

Navy officially requested the JDVC to support the local carrier group with a food inspector in its 5-month deployment to U.S. Central Command. Further requests have come from Pacific Command for initial support to U.S. Forces deployment to the Philippines.

Although it is small in comparison to other veterinary districts, the JDVC remains one of the largest units in U.S. Army-Japan, in both personnel and area of responsibility. With its expertise and capabilities, it is dedicated to ensuring the best in food quality, safety, animal health care, and soldier support to the Pacific Rim.

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Role and Mission of the U.S. Army Dental Activity-Japan: A Historical Perspective

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Introduction

Throughout history, the indomitable spirit of military achievement is inspiring. It is common for military initiatives to be fraught with significant challenges yet success seems to be the overwhelming outcome. This familiar theme of success amid challenges and difficulties is also present in the care and delivery of dental services in a foreign land and remote locations. Japan, with its robust population and highly technological industry, hardly qualifies as remote. However, providing military dental care to the entirety of its population's potential beneficiaries is a significant challenge. It has been said of late that, "there are fewer dentists in practice today than there were yesterday, and there will be fewer in practice tomorrow than there are today." This shrinking pool of potential providers is of huge concern to the Army Dental Care System as it is to all organizations seeking available providers. Additionally, finding qualified auxiliary civilian personnel, timely access to specialists, limited access to continuing medical/dental education, pharmacy support 24/7, supply logistics and hazard communication constraints and delays, to name a few, are some of the concerns that need to be negotiated when considering dental care delivery in Japan. In addition, both clinics within the command function without emergency medical services available on their immediate installation. This is not to say that they do not exist, but only to articulate that this is another logistic barrier to manipulate.

Admiral Charles R. Larson stated, "Our strategy has evolved and matured to accommodate the reshaping of the strategic environment – it is a cornerstone of the new Pacific community. Our continued success in pursuing this strategy ensures the stability essential to a benign environment, regional economic growth, and the enlargement of free markets and democracies – all of which are clearly in the best interests of the United States." (1994, *Military Review*, ADM Charles R. Larson, CINCPAC, USPACOM) Although Admiral Larson is

speaking of global issues in this statement, his perspective in the Pacific Rim is not without direct application to the delivery of dentistry in Japan. This statement of reshaping and flexibility in the Pacific is exactly what is required to meet any mission in Japan. Our host, while gracious and cooperative, does not completely mitigate the litany of challenges that are encountered while providing dental care in Japan. In understanding challenges, the following story goes to point.

In 1968, an Olympiad marathon runner by the name of John Stephen Akhwari represented Tanzania in an international competition. He was the last man to cross the finish line, over an hour from the time the winner had completed the race. Suffering from fatigue, leg cramps, dehydration, and disorientation, Akhwari was the last man to finish the race. When asked why he would complete a race that he knew he could never win his response was, "my country did not send me 5,000 miles to *start* the race; my country sent me to *finish* the race." (The last African Runner, Olympiad Series, Bud Greenspan, Cappy Productions, 1976.)

This spirit of commitment to a mission accomplishment typifies that of military achievement within the Army Medical Department. Like John Akhwari, who symbolizes the finest in human spirit, the Dental Corps also shares these same values. The U.S. Army Dental Corps does not just deploy personnel assets throughout the world to start a mission, but rather to achieve and sustain dental readiness, fitness, and wellness for its soldiers and additional eligible beneficiaries.

History

Since the end of World War II, U.S. Army Dental Activity-Japan (USADENTAC-Japan) has proudly served the soldiers and other beneficiaries of the Camp Zama, Sagami Depot, Sagamihara and Torii Station, Okinawa communities as well as caring for soldiers during the

Korean War and the Vietnam Conflict. Although organized under various units and designations through the years, Army dental support to Japan became organized as a separate unit in 1978, at which time it was designated USADENTAC-Honshu. Originally two dental clinics served the Camp Zama community, one in building 252 and the other as the hospital dental clinic located in Sagami-ono where the Isetan Department Store is presently located. In 1979, the two clinics combined and relocated into the present location in building 704. The unit was redesignated USADENTAC-Japan on 1 October 1982 and retains this name today. In 1987, due to staffing reductions to the USN Dental Clinic, Okinawa, it became necessary to expand the mission of the USADENTAC-Japan by staffing and operating a dental clinic at Torii Station. As such, in 1988, Army dental support was reintroduced to Okinawa to support the growing numbers of Army personnel assigned to Torii Station. They are located in building 226 and are still in operation today. In December 1995, the USADENTAC-Japan was reorganized from U.S. Army-Japan to U.S. Army Medical Command.

Mission

The Army Dental Care System is the largest dental managed care organization in the world. As such, the mission of the USADENTAC-Japan is similar to all dental activities worldwide. First and foremost, our mission is to provide optimal dental care to soldiers, sailors, airmen, and marines along with other eligible beneficiaries pending space-availability (Figure 1). Those dental activities located in foreign lands offer care to family members, Department of Army civilians, retirees, and their eligible family members on a space-available basis. In addition, we also assist in medical evacuation of patients to military and host nation medical and dental treatment facilities as required.

With space-availability constraints, we cannot treat everyone for everything and are often relegated to directing patients to seek care on their own on the economy. Although by law we cannot certify nor recommend specific treatment facilities by host nation providers, we can, and have, gone to local dental clinics to assess their treatment facilities. By doing so, we are able to provide a list of possible providers that meet acceptable treatment standards. The major areas of concern that we

look for in this assessment is dental treatment philosophy and its method of delivery, and infection control standards that are consistent with that found in the U.S. The ability to communicate in the office without significant language barriers is also assessed. This is just one more way we assist in the overall delivery of dental services for those assigned to live and work in Japan.

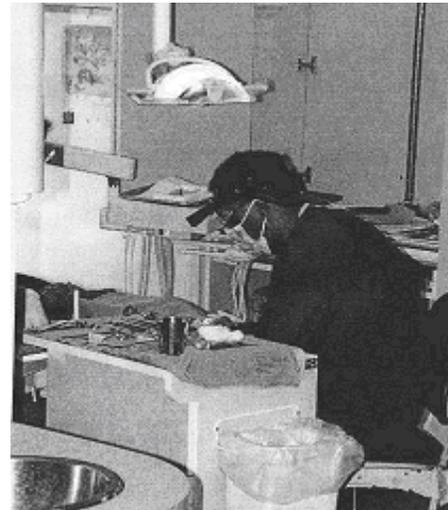


Fig 1. LTC Robert Rock treating a patient at Camp Zama, Japan.

With the advent of global unrest and instability associated with war and terrorism, we are called on to accept new and additional alternative wartime roles. We assist in operations such as Reception Staging and Onward Integration of U.S. medical forces during mobilization exercises and operations throughout Japan. We also provide and ensure dental readiness and contingency support to U.S. Army-Japan/9th Theater Army Area Command plans for war and other operations to include preparations for natural and manmade disaster and mass casualty situations. The dental command in Japan, like any other organization, has an established mission essential task list. Training focused at these specific objectives allows the organization to maintain proficiency with our broad spectrum mission.

Area of Operations

The land surface area of Japan is nearly 378,000 square kilometers, nearly the size of the state of California. The principal area of operations for USADENTAC-Japan is at Camp Zama on the Kanto plain (see map inset). The Dental Activity Headquarters is located here along with a

fixed facility containing 10 dental treatment rooms. Torii Station, Okinawa, home of the 10th Area Support Group, houses the second fixed facility operated by U.S. Army personnel representing the balance of U.S. Army dental command presence in Japan. The clinic at Torii Station is a four-chair facility. Both Camp Zama and Torii Station are in consideration for clinic expansion projects to help facilitate the increasing demand and requirement for care. As will be discussed later in this article, we rely heavily upon both Naval and Air Force assets for dental support to U.S. Army personnel located in remote locations throughout Japan.

The Air Force provides direct support to U.S. Army personnel at Yokota and Misawa Air Bases on the island of Honshu and Kadena Air Bases in Okinawa. The robust clinical support from Kadena primarily supports family members along with referral specialty care from Torii Station clinic. This is a most favorable relationship not only in regard to the care rendered but also that most of the Army patients treated by the Air Force live on or proximal to Kadena Air Base. This also does not constitute a large logistic time or distance burden to patients as Kadena is only 20 to 30 minutes away from Torii Station with convenient access by car. This proximity convenience factor is not the same for patients referred from Camp Zama to Yokota Air Base or Yokosuka Naval Base.

The Navy provides direct support care for U.S. Army personnel at Marine Corps Air Station Iwakuni and Naval Air Facility Atsugi on the island of Honshu, Command Fleet Activities Sasebo on the island of Kyushu, and at

Camp Foster Marine Corps Base in Okinawa. Referral support care is provided at Yokosuka Naval Base on Honshu and in a limited fashion at Evans DC at Camp Foster in Okinawa. There is a small U.S. Army contingent in Bangkok, Thailand, that currently obtains dental care through civilian providers. It can be determined from this geographic lay down of the area of operations in Japan that though small, the mission is fairly complex (Figure 2).

Relationship with Sister Services

Providing quality and timely comprehensive dental treatment to a very diverse group of beneficiaries would not be possible without unwavering cooperation and support from the Air Force and Navy. General dentists at Camp Zama Dental Clinic have the option of referring patients who require advanced specialty care to either the 374th Dental Squadron at Yokota Air Base located in Fussa, Japan, or Branch Dental Clinic Yokosuka, U.S. Naval Dental Center Far East on Fleet Activities Yokosuka Naval Base in Yokosuka City, Japan. Specialty care in endodontics, prosthodontics, periodontics, pediatric dentistry, and oral/maxillofacial surgery are usually available at both installations. The U.S. Army Medical Activity-Japan provides a daily shuttle to and from these Navy and Air Force medical and dental treatment facilities. Transit time to either base usually takes between 1-1/2 to 2 hours. Navy and Air Force specialists additionally serve as a valuable resource for telephone consults and provide assistance in treatment planning for complicated multidisciplinary cases.

The only dental specialist assigned to USADENTAC-Japan is an orthodontist stationed at Camp Zama. A memorandum of agreement exists between the USADENTAC-Japan and U.S. Naval Dental Center Far East that establishes the guidelines and responsibilities for joint service orthodontic care for eligible beneficiaries in the Camp Zama and Naval Air Facility Atsugi catchment area. Functional responsibility for the orthodontic services in the area is provided by an in-house Army orthodontist at Camp Zama Dental Clinic. The Navy provides two full-time dental assistants and shares half of the operating costs for the orthodontic practice. Historically, orthodontic services for the population in this area have been provided by periodic visits by an

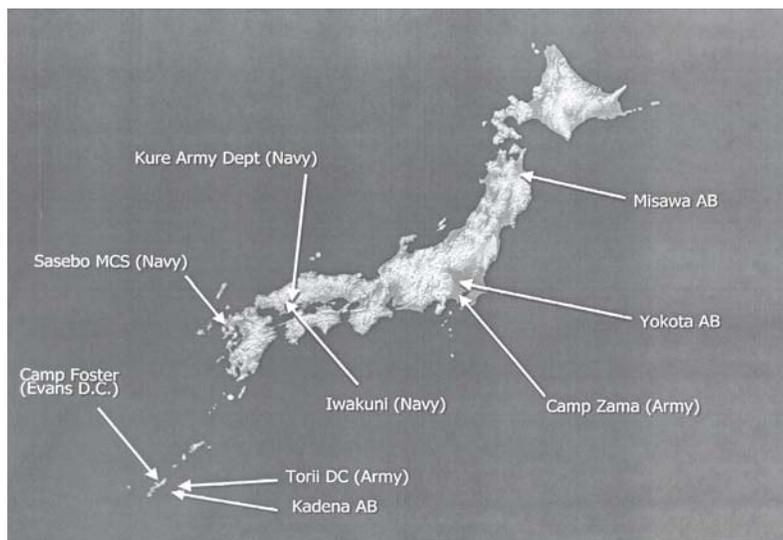


Fig 2. Map of Japan with military installations with dental support.

Air Force orthodontist from Yokota to Camp Zama and a Navy orthodontist from Yokosuka to Naval Air Facility Atsugi. Orthodontic services became available on a full-time basis at Camp Zama in the summer of 2000. Patients already undergoing full, active orthodontic treatment prior to notification of overseas transfer receive priority for orthodontic care. The majority of the available orthodontic treatment time is devoted to these individuals. Due to the high number of patients requesting initiation of orthodontic care, a screening system is utilized to ensure patients with the greatest need have the highest priority as it is not feasible to provide orthodontic care to all who desire it. For those patients who require orthognathic surgery, treatment is planned and coordinated with Air Force and Navy oral/maxillofacial surgeons located at Yokota and Yokosuka Bases, respectively. Every effort is made to ensure that the mix of orthodontic patients approaches 50% Navy and 50% Army dental care beneficiaries. Approximately 250 patients are undergoing active orthodontic treatment according to most recent figures. The increased availability of orthodontic care has immeasurably enhanced the quality of life at both military installations and is consistently ranked as a highly desired service by the community at large.

Dental laboratory technicians at both Yokosuka and Yokota provide clinicians at Camp Zama a valuable resource for fabrication of dental laboratory products when a short turn around time must be met. Moreover, the dental laboratory at Yokosuka recently provided critical on-the-job training in fabrication of orthodontic appliances for Camp Zama's new dental laboratory technician. Dental laboratory support has also been provided by Branch Dental Clinic Naval Air Facility Atsugi when the Camp Zama laboratory technician has taken an extended leave or when an under lap in personnel assignments has occurred. Overall, the vast majority of dental laboratory support for Camp Zama and all lab support for Torii Station is provided by the Area Dental Laboratory, 18th Dental Squadron, Kadena Air Base, Okinawa, Japan. Reduced case shipping time because the lab is located in theater and the sustained high level of product quality control makes this a preferred dental lab for all clinicians.

The Japanese Ground Self -Defense Force (JGSDF)

Over the years in Japan, the Dental Activity have cultivated a professional relationship with the JGSDF

Dental Corps. The dental slice from the JGSDF consists of approximately 150 dentists with an authorization of 146. These officers range from a Corps Chief in the rank of Major General down to entry-level dental officers in the grade of 1LT. The majority of these dental officers are assigned to hospitals and dispensaries. In addition, JGSDF dentists work as staff officers in the Ground Staff Office, Division logistic support, military medicine research, and as mentors in medical and dental service schools. Some officers are accepted as residents into post doctoral training programs. About two thirds of JGSDF dental officers work in garrison clinics throughout Japan. These assignment opportunities are similar to those found in the U.S. Army Dental Corps.

The USADENTAC-Japan, over the years, has had frequent interaction to bilaterally express cultural professional concepts relative to patient care. Annually, the dental activity at Camp Zama hosts and executes a bilateral training conference with the residents and staff from Central Hospital in Tokyo (Figure 3). During this forum, the JGSDF officers are exposed to an array of concepts ranging from mission of the U.S. Army Dental Corps, the operational matrix, readiness objectives, and field dentistry exposure. Some continuing medical and dental education topics are also provided to enhance clinical practice capabilities for all in attendance. As we maintain this win-win cultural and professional relationship, everyone benefits in the process.



Fig 3. CPT Ryan Wang provides instruction during the bilateral conference at Camp Zama to dental residents and staff from Central Hospital in Tokyo.

Continuing Education Opportunities

Many opportunities exist for collaboration between the three services for continuing education and

professional development which at times can also include participation from host nation dentists. Paramount among continuing education venues is the Annual Conference of the Tri-Service Dental Society of Japan held in Tokyo at the New Sanno U.S. Forces Center. Since 1952, members of the dental profession from the U.S. Military, the JGSDF, and the Japanese academic and civilian communities have assembled for this annual program of continuing education and fellowship. This forum for the exchange of professional knowledge and clinical techniques has contributed significantly to strengthening partnerships among the three services and our host nation colleagues. Hosting responsibilities for the Tri-Service meeting is rotated among the USADENTAC-Japan, 374th Dental Squadron, and U.S. Naval Dental Center Far East. The scientific program generally consists of lectures and table clinics presented by dentists from the Pacific Theater, the United States, and Japan. A small number of dental material and equipment vendors are also on hand to display their products. Representatives from each of the service's major dental command sections, career activities and/or assignments sections often attend the Tri-Service Conference in order to provide service specific updates and career counseling.

The annual U.S. Forces Korea Dental Training Conference held at the Dragon Hill Lodge, Yongsan Army Base, Seoul, Korea, is another opportunity in theater to obtain quality continuing education. This 4-day conference is sponsored by the 38th Parallel Dental Society and 618th Dental Company (AS). The 38th Parallel Dental Society was organized in 1959 in order to provide professional and social interaction for dental health care providers stationed on the Korean peninsula. The first meeting was held at the United Nations Command Headquarters in Seoul in November 1959. The scientific program generally features presentations from high profile guest speakers from the U.S. and lectures delivered by military dentists stationed throughout the Asia-Pacific area in addition to presentations from Korean dentists. Representatives from the U.S. Army Dental Command, career activities and/or assignments sections, often attend the U.S. Forces Korea Dental Training Conference in order to provide Army dental officers Dental Corps updates and career counseling.

Civilian continuing education conferences sponsored by Japanese dental organizations give dental officers

assigned to USADENTAC-Japan another alternative for advancing professional knowledge and skills and interfacing with host nation counterparts. However, the language barrier can be problematic at some venues. For those dentists interested in broadening their knowledge and gaining a more global perspective on dentistry, excellent quality continuing education in English is available in New Zealand and Australia and the travel time is not much different than going back to the U.S. Several international dental meetings which provide translation services or often have English as the official meeting language afford dental officers the opportunity to meet dentists from all over the world and learn new and different treatment approaches. Some examples of international meetings held in the Asian-Pacific region include the Asian-Pacific Dental Congress, the International Dental Exhibition and Meeting, Singapore, and the Federation Dentaire Internationale Annual World Congress. Locally sponsored, informal study clubs provide an inexpensive and convenient means to grow professionally and take advantage of the diverse backgrounds in training and experience inherent in any group of military dentists. Reviewing literature, discussing a challenging case, or watching a technique video program are all simple and worthwhile means to enhance professional knowledge.

The Commander of the Area Dental Laboratory at Kadena Air Base has traveled to Camp Zama to present several continuing education topics in prosthodontics. Moreover, the Area Dental Laboratory produces the "Kadena Area Dental Laboratory Information Letter" which is a good source for practical information on clinical techniques and suggestions to enhance the quality of case submissions.

Community Connection

While USADENTAC-Japan provides valuable and highly sought-out dental services that often exceed the expectations of a very diverse group of beneficiaries, our team of professionals is just as totally committed to enhancing the quality of life in the community outside the dental clinic. This spirit of total commitment to the soldiers, family members, retirees, and civilians we serve, not to mention, our host nation workers and friends is what makes Camp Zama an Army Community of Excellence.

The DENTAC plays a major role each year in sponsoring the observance of National Children's Dental Health Month throughout the community. Dental personnel, led by the Preventive Dentistry Officer, promote the benefits of maintaining good oral health to children, parents, teachers, and caregivers. Numerous methods are employed to get the message out to include conducting a poster or essay contest, running newspaper articles and televised public service announcements, displaying posters with dental themes, giving children new toothbrushes and handing out activity sheets to creatively teach them about good oral health. One key and essential task during the National Children's Dental Health Month campaign is conducting screening dental exams on over 600 children at the local elementary school and child development centers (Figure 4). This is an opportune time to identify any children who may have neglected urgent treatment needs and provides interaction with the dental team in a nonthreatening atmosphere that promotes a positive dental experience.



Fig 4. Conducting a dental exam during the National Children's Dental Health month campaign.

Clinic personnel have served as merit badge counselors for local boy scouts who aspire to earn the Dentistry Merit Badge. The boys learn about teeth and the oral cavity, the causes and how to prevent dental diseases and injury, and become familiar with different career fields within the dental profession. The scouts actually spend an entire session in the dental clinic, gaining firsthand experience on what dental personnel do in their line of work and see some of the equipment and instruments that are used. Students from the post high school special education class have also been given an orientation to the dental clinic and some hands-on experience in the dental laboratory.

Dental officers have given presentations to new and expectant parents on oral health care from infancy to age six and on the topic of child abuse. The DENTAC staff provide informative monthly briefings to incoming personnel on the services offered by the dental clinic. Dental personnel have participated in community mass casualty and disaster relief exercises in support of U.S. Army Medical Department Activity-Japan.

Many dental personnel unselfishly volunteer time as coaches, mentors, children's activity leaders, community mayors, sports league organizers, and in their places of worship. The community spirit embodied by the unit extends off-base as well. Several clinic personnel have visited a local Japanese orphanage on multiple occasions bringing generous donations of needed items and spreading some joy and happiness to those less fortunate.

The DENTAC leadership provided some internal customer appreciation as it expressed its gratitude for being blessed with a highly dedicated and loyal staff by sponsoring several activities during the 2003 Dental Assistants Recognition Week. This supreme effort, spearheaded by the former senior dental non-commissioned officer, won a National award from the American Dental Assistants Association. The award will be presented to the command in November at this year's annual Association of Military Surgeons of the United States meeting in San Antonio.

The mission to deliver dental care to patients in Japan is an exciting prospect. The command team and clinical staff representing the USADENTAC-Japan take our role and mission seriously and make every effort to provide timely state-of-the-art dentistry. We are grateful to our host nation for their gracious efforts to make us feel welcome. We are also grateful to our professional sisters and brothers in the Navy and Air Force for their support because without it, we could not provide the level of care to those deployed to Japan.

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Integrating Smallpox Response into a MASCAL Exercise

LTC Daniel W. Gall, MSC, USA††
Capt (Ret) Robert E. Fraser, USAF††

“One potential danger to America is the use of the smallpox virus as a weapon of terror...it is prudent to prepare for the possibility that terrorists would kill indiscriminately – who kill indiscriminately would use diseases as a weapon.” – President George Bush, 13 December 2002

The remarks from our Commander in Chief reinforce two powerful points pertinent to medical treatment facilities throughout the world. First and foremost is that the smallpox virus is a viable threat. The second point calls for active preparation for such a threat. The leadership within the U.S. Army Medical Department Activity-Japan (USAMEDDAC-Japan) not only heeded the President’s call, but also the mission statement contained in the Department of Defense (DOD) Smallpox Response Plan specifying the DOD will immediately prepare to respond to a smallpox outbreak.¹ On 7 August 2003, as a part of the U.S. Forces-Japan (USF-Japan) annual Tri-Service mass casualty (MASCAL) exercise, USAMEDDAC-Japan became one of the first, if not the first military treatment facility (MTF) in the Pacific Theater to integrate smallpox response into a MASCAL exercise in accordance with the DOD Smallpox Response Plan. The exercise highlighted the complexity of the DOD Smallpox Plan at the MEDDAC level, and also the importance of detailed planning and preparation at all levels. The purpose of this article is to share USAMEDDAC-Japan’s general approach towards the planning, training, execution and key lessons learned during a MASCAL exercise using a smallpox response scenario.

Assessing the Smallpox Threat as a Priority

Smallpox is a contagious disease caused by the variola virus that spreads naturally only from one person to another. Historically, approximately 30% of those infected die from the disease. Naturally occurring smallpox was eradicated worldwide in the late 1970s through a global vaccination campaign using live vaccinia virus. The U.S. ceased smallpox vaccinations in 1972 and the last natural case of smallpox occurred in 1978. However, it remained a

biological threat because of the clandestine stocks of smallpox virus stored to this day in a major Russian Research Center in Koltsovo, Russia.²

The threat of smallpox to the military has increased since the 1970s as countries have diverted assets away from smallpox vaccines. Populations have grown significantly older and their remaining immunity to the disease has lessened. The younger generation is most at risk having never been vaccinated. If an outbreak of smallpox occurred, several factors could contribute to the rapid spread of smallpox: fewer people with immunity; delay in recognizing a rare disease; more immunodeficient individuals; and greater individual mobility.³ Because of these factors, a single case of smallpox would constitute an emergency and would require immediate response to contain the outbreak.

To respond to such an emergency, all health care organizations are required to maintain emergency management plans (EMP).⁴ According to the Joint Commission for Accreditation of Healthcare Organizations (JCAHO), the EMP “comprehensively describes the organization’s approach to responding to emergencies within the organization or in its community that would suddenly and significantly affect the need for the organization’s services, or its ability to provide those services.” JCAHO defines emergencies as “A *natural or man-made event that significantly disrupts the environment of care (for example, damage to the organization’s building[s] and grounds due to severe winds, storms, or earthquakes); that significantly disrupts care and treatment (for example, loss of utilities, such as power, water, or telephones, due to floods, civil disturbances, accidents, or emergencies within the*

organization or in its community); or that results in sudden, significantly changed or increased demands for the organization's services (for example, bioterrorist attack, building collapse, or plane crash in the organization's community)." The EMPs in military treatment facilities must now incorporate plans for and initiate bioterrorism training and preparation as part of its JCAHO accreditation. This is part of the all hazards standard concerning emergency management.⁵

When it comes to potential emergencies, USAMEDDAC-Japan has its share to include hazards such as earthquakes, typhoons, volcanic eruptions, and Chemical, Biological, Radiological, Nuclear or High Explosive (CBRNE) incidents. The probability of CBRNE incidents increased dramatically for USAMEDDAC-Japan back on 20 March 1995 when members of the Aum Shinrikyo cult entered the Tokyo subway system and released sarin, a deadly nerve agent. By the end of this tragic day, 15 subway stations in the world's busiest subway system had been affected, 12 people died, and close to 3,800 people were injured – all within a 1 hour drive from MEDDAC-Japan.⁶ Following terrorist attacks of 11 September 2001, the probability continued to increase as the threat of bioterrorism became a stark reality in the U.S. with the Anthrax attacks at various U.S. locations during the months of September and October 2001.

To assess priorities to potential events that may constitute an emergency, MEDDAC-Japan's hazard vulnerability analysis scores each event by its probability of occurrence, its risk, and preparedness of the organization. The scoring methodology is as follows: Probability (High=3, Medium=2, Low=1, None=0); Risk (Life Threatening=5, Health/Safety=4, High Disruption=3, Moderate Disruption=2, Low Disruption=1) and Preparedness (Poor=3, Fair=2, Good=1). Events having a total score of 5 and above are specifically planned for and included into USAMEDDAC-Japan's EMP. Using this methodology in the midst of the global war on terrorism, the USAMEDDAC-Japan reassessed the threat of smallpox and made it one of its top training priorities for 2003.

Preparedness and the DOD Smallpox Response Plan

Once MEDDAC-Japan established smallpox preparedness as a top-priority, the next step was to develop

a MEDDAC-Japan level smallpox response plan to be incorporated as an annex in its EMP. To do this, the staff had to look no further than the DOD Smallpox Response Plan dated 29 September 2002 (version 3.1). This comprehensive plan contains a plethora of detailed information to include surveillance, contact tracing, epidemiological tracking, vaccination and adverse effect guidelines, including set-up of a mass vaccination site, medical care of Smallpox (Variola) patients, isolation and quarantine guidelines, specimen collection details, communications plans, and decontamination guidelines.

The concept of operations for a smallpox response operation as detailed in the plan consists of six phases:

- Phase I: Deliberate planning and preparedness
- Phase II: Situational Assessment and Notification
- Phase III: Consequence - Management Deployment
- Phase IV: Military Consequence - Management Support
- Phase V: Transition to Civilian Agencies
- Phase VI: Redeployment

Of these phases, Phases I and II are the most pertinent for a MEDDAC-Japan. Phase I stipulates that most planning for implementation takes place at the installation and MTF level. The MTF Commander's pre-outbreak responsibilities include developing programs and policies to train their medical responders in smallpox recognition and response; instituting medical surveillance for generalized febrile vesicular or pustular rash illness; developing and exercising response teams; maintaining shipping materials for smallpox infected specimens; and reporting procedures for Serious Incident Reports of fever-rash illnesses to the Center for Disease Control (CDC). The Installation Commander's responsibilities include the identification of garrison facilities needed in advance of an outbreak for triage and mass vaccination clinics as well as quarantine facilities. The installation must also plan for and identify medical waste, laundry, and food service support in the advent of an outbreak.

Phase II begins with the confirmed diagnosis of smallpox anywhere in the world. At this time, military commanders and responsible DOD officials are authorized to execute immediate response within their capability and authority to save lives, prevent human suffering, and limit

the spread of the disease. The plan highlights the fact that smallpox response planning must be integrated at the installation level. The following are examples of tasks to various agencies.

Installation Commanders and Unit Commanders. Restrict movement and conduct assessment to determine if outbreak considered near or distant to the installation. Institute appropriate Force Protection measures. Provide logistics support to include emergency laundry, food service, and medical wastes disposal.

The MTF Commanders. Conduct Active Surveillance. Isolate potential cases. Identify potential contact. Coordinate with local health department for contact tracing. Vaccinate contacts as well as high risk personnel such as first responders. Provide care, treatment, and monitoring of smallpox victims.

Public Affairs Office (PAO). Control and facilitate media coverage and disseminate timely and detailed information to the public per Federal Emergency Management Agency, Federal Bureau of Investigation (FBI), CDC, and DOD guidance to maintain information control and release.

Judge Advocate General and G5 Civil Affairs. Coordinate with civil authorities on legal matters related to public health communications with local government and control of local nationals.

Directorate of Public Works. Identify contingency buildings for triage, mass vaccination, and Type C (Contagious), Type X (Uncertain), and Type R (residential) quarantine facilities.

Provost Marshall Office. Support security requirements for all sites to include the MTF, smallpox response teams, and smallpox vaccine and specimen shipments.

The diagram on the following page provides a general overview of integration and coordination required to execute a Smallpox response plan at the installation level in accordance with Phases I and II. The remaining phases involve coordination between Major Commands and civil agencies to include the Government of Japan, Pacific Command, U.S. Medical Command, U.S. Transportation Command, the CDC, and the FBI which is beyond to scope of this article.

Integrating the Smallpox Response Plan into a MASCAL Exercise

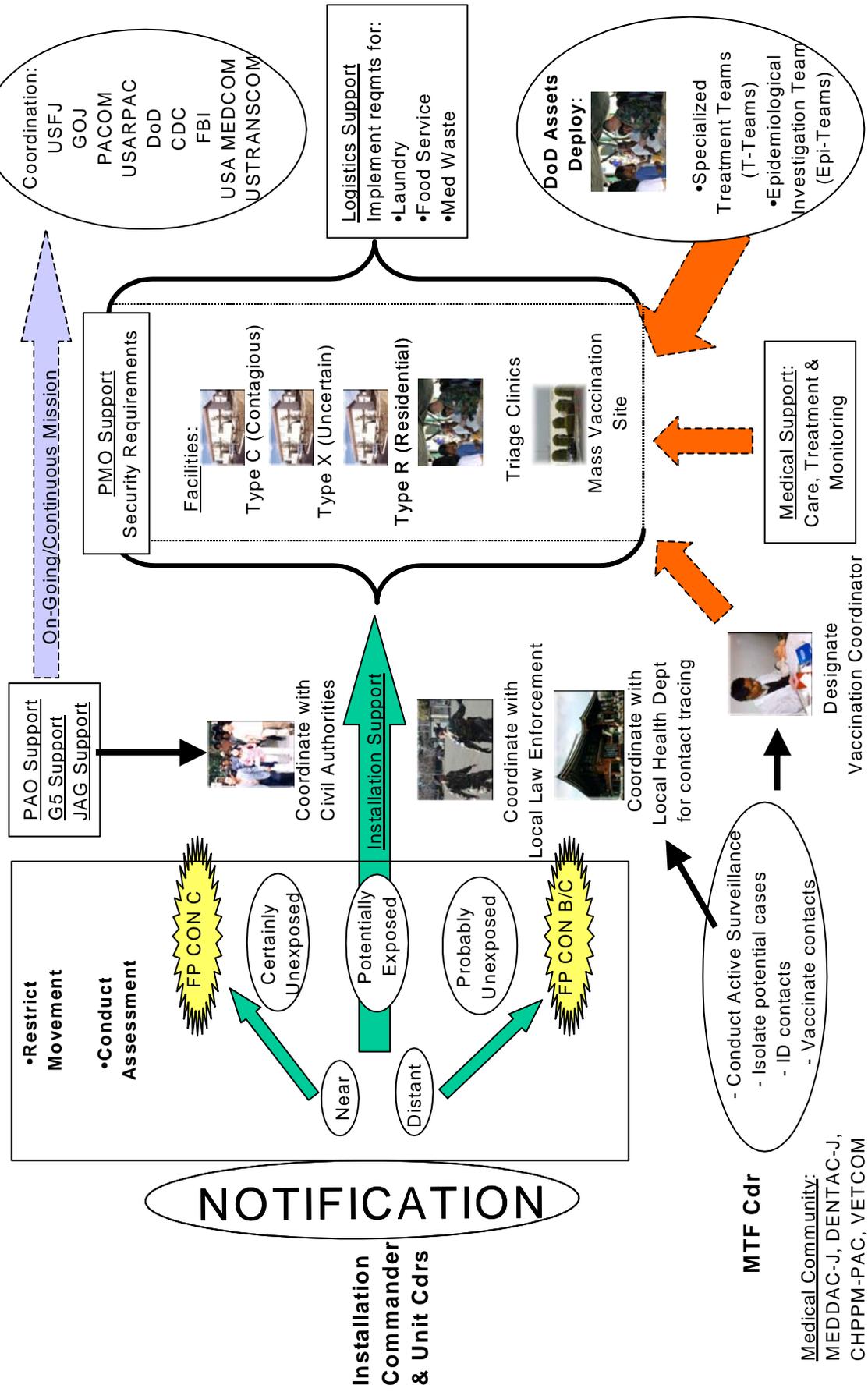
The deliberate planning of the smallpox response plan involved intense staff coordination between USAMEDDAC-Japan, USACHPPM-PAC, U.S. Army Garrison-Japan (USAG-Japan), U.S. Army-Japan, and USF-Japan. The U.S. Army-Japan Surgeon's Office played a central role in the synchronization of all the planning activities involved in developing the response plan and integrating it into USF-Japan's annual Tri-Service MASCAL exercise. This included a multitude of planning and coordination meetings from the unit level all the way to the joint level. As a result, USF-Japan incorporated the smallpox response scenario into its overarching MASCAL scenario involving a plane crash at Yokota Air Force Base, approximately an hour from USAMEDDAC and U.S. Army-Japan headquarters located at Camp Zama, Japan. This provided USAMEDDAC-Japan an ideal opportunity to exercise its smallpox response plan with external agencies.

The USAMEDDAC-Japan plan task organized the MEDDAC into functional smallpox response components while also maintaining conventional treatment capability. Each functional component was task organized under the leadership and responsibility of a Deputy Commander. The Deputy Commander for Administration, dual hated as the U.S. Army-Japan Deputy Surgeon, was responsible for developing the operations plan, establishing an Emergency Medical Operations Center, establishing an internal facility security team and manpower team. The Deputy Commander for Clinical Services was responsible for maintaining a conventional care team, establishing a Triage Team, a Facility R team, and a Facility X team. The Deputy Commander for Nursing was responsible for the Smallpox clinical care team, the vaccination team, and the Facility X team.

As the staff developed the plan, USAMEDDAC-Japan simultaneously executed training for smallpox response long before the actual MASCAL exercise using the crawl, walk, run approach. The crawl phase consisted of overview briefings of the DOD Response Plan to the entire organization. This provided all MEDDAC personnel basic knowledge on Smallpox and how the DOD planned to respond to an outbreak. The walk phase involved training the separate functional components on their essential tasks within their respective assignments,

Smallpox Response Plan

Mission: In case of smallpox outbreak, conduct response operations in accordance with the DoD plan to contain and halt the outbreak, preserve combat readiness, save lives, and prevent human suffering.



exercising and refining recall procedures, and coordinating for the required resources. This phase culminated with the distribution of the final MEDDAC smallpox response plan and the execution of a rock drill. The rock drill was conducted in front of all MEDDAC-Japan personnel and included the U.S. Army-Japan Surgeon's Office, U.S. Army-Japan Staff, and USACHPPM-PAC staff as participants.

On 7 August 2003, USAMEDDAC entered its run phase when U.S. Army-Japan notified the USAMEDDAC-Japan Commander that the Japanese news reported a case of smallpox in a Japanese community near Camp Zama. This simulated news report officially initiated the exercise. At the same time, five simulated smallpox victims signed into sick call at USAMEDDAC-Japan intermixed with real-world patients. Each simulated smallpox patient presented with varying smallpox symptoms – some visible with the aid of moulage. The smallpox victims were triaged, diagnosed, isolated, treated, and quarantined as per established protocol. The presumptive diagnosis of smallpox set the Smallpox response plan in motion.

The USAMEDDAC-Japan, then with a contaminated facility, played a major role in the exercise at the installation level by interfacing with the USAG-Japan and U.S. Army-Japan through intensive emergency operation center command functions. Smallpox Response teams were formed and deployed to conduct their respective missions. The installation responded by dispatching military police to secure the facility. The laboratory and the Smallpox Emergency Response Team (SERT) followed procedures to process a notional shipment of smallpox contaminated specimens. The CHPPM-PAC SERT team requested additional Pacific Forces SERT teams support as needed. Intense coordination and crisis action planning for required assets and resources ensued throughout the day with the installation staff. The MEDDAC attempted to move patients to other DOD medical facilities with negative pressure rooms, but due to the simulated plane crash, they were unable to accept the smallpox patients. The MEDDAC was forced hold the patients further contaminating the facility. As a result, patients requiring conventional care had to be diverted to other installations. The death of one of the simulated smallpox patients was the last twist to the scenario before the end of the

MASCAL exercise was called by USF-Japan.

Lessons Learned

Many lessons were learned during the planning and integration of the smallpox response plan into a MASCAL exercise. The mandate exists for rapid implementation of the DOD Smallpox Response Plan worldwide to protect assets and to contain smallpox quickly. This objective is not easily accomplished. The main lesson learned from USAMEDDAC-Japan is that smallpox response is a very complex scenario requiring extensive pre-planning, coordination and training not only at the unit level, but with the garrison and installation staff as well. Other lessons learned include:

- Intensive personnel and team training in smallpox identification and containment skills is mission essential. The importance of methodically training the staff using CDC guidelines is paramount. Review of Smallpox diagnosis and identification, isolation, containment, and quarantine procedures must be mandatory for a thorough understanding of the threat and how to contain it.

- Standardized reporting procedures are needed to facilitate information flow through various military, federal, and civilian agencies. Knowing up front what the type of information, the timing, and the required format saves precious time and energy at all levels.

- Installations need to identify contingency facilities in the deliberate planning phase and modify as needed during the crisis. This reduces the chance of unnecessary delays in the decontamination of the MTF.

- Improve procedures for transferring contaminated patients to local DOD hospitals with negative pressure facilities. Local military hospitals with negative pressure rooms should be ready for rapid transfer of smallpox casualties at all times. Procedures to combine resources among different medical facilities in support of the smallpox response plan are needed in advance of an outbreak.

- Develop a Behavioral Health Support Plan in conjunction with installation Chaplain and PAO agencies. Helping agencies will need to collaborate quickly for stress management and mass panic control at the community

level, and these eventualities should be planned for in advance, and exercised. An effective and proactive PAO will need to assist in keeping the public up-to-date on the continuing smallpox scenario.

Conclusion

The threat of bioterrorism is real and the DOD Smallpox Response plan is an excellent source and guide for emergency management planning. However, the deliberate planning process and preparation for smallpox response does not happen overnight. It takes time, effort and perseverance to develop a well staffed, resourced, and coordinated plan with agencies external to the MEDDAC. But the plan is only one part to emergency preparedness. Training personnel and exercising the plan is the other critical part. And as USAMEDDAC-Japan discovered, integrating smallpox response into a MASCAL exercise is an excellent way to reinforce the importance of being prepared for a bioterrorist attack.

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Deployable Field Nucleic Acid-Based RT-PCR and PCR Assays for Detection of Pathogens from Arthropods

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The rapid identification of relevant arthropod-transmitted pathogens and the determination of potential human disease risk, especially in field environments, are of great importance to the U.S. military. The development of standardized ribonucleic acid (RNA) extraction procedures and rapid nucleic acid-based diagnostic techniques designed to identify arthropod-borne pathogens within any given region of the world is a major preventive medicine concern to deployed military and humanitarian support organizations and has been at the forefront of military research and surveillance efforts for many years. Currently, the accepted techniques for virus isolation, identification, and characterization include cell culture, animal inoculation, hemagglutination inhibition assay, plaque reduction neutralization assay, and viral serology.¹ Immuno-chromatographic “dipstick” assays are quick and easy to perform but are limited to a few specific pathogens, namely malaria, West Nile virus (WNV), and St Louis encephalitis virus. The dipstick kit for dengue is currently under development. Light-cycler or real-time polymerase chain reaction (PCR), is also under development by military and civilian institutions, and will eventually be the gold standard of arthropod-borne pathogen detection. Currently, conventional PCR is affordable and easy to perform using ready-to-go products.²

Figure 1 outlines the methodology of the diagnostic assay used to detect pathogens in mosquitoes. Mosquitoes are collected by a variety of methods, to include backpack aspiration, standard light traps baited with CO₂, sentinel animals (pigs, cows, ducks, or chickens), and human landing counts. Mosquitoes are pooled into groups of 25 (by species or at the minimum, genus) and placed into a 1.5 mL microcentrifuge tube containing a copper BB. The addition of the BB has enabled better containment of the sample and has minimized the chance for cross-contamination or for the generation of aerosols. Phosphate buffered saline or cell culture media is added to the

microcentrifuge tube and vortexed for 2 to 3 minutes. The ability to detect one virus-infected mosquito in pooled mosquitoes was investigated in the laboratory by triturating one virus-infected mosquito with increasing numbers of uninfected mosquitoes. Trituration or homogenation of one infected mosquito with up to 49 uninfected mosquitoes yielded RNA that was efficiently converted into copy deoxyribonucleic acid (cDNA). The PCR amplification of the cDNA resulted in approximately the same level of sensitivity for each pool containing one infected mosquito and either 0, 4, 9, 14, 24, or 49 uninfected mosquitoes. Twenty-five mosquitoes per tube was the number selected for standardization of the assay. Enough sample is prepared for field testing and for forwarding to one of several Army research laboratories for further analysis (viral growth or genetic sequencing). At this juncture, specimens can be processed for RNA-based pathogens like Japanese encephalitis (JE), WNV, or Crimean Congo Hemorrhagic Fever (CCHF), or processed for DNA-based pathogens, like malaria,

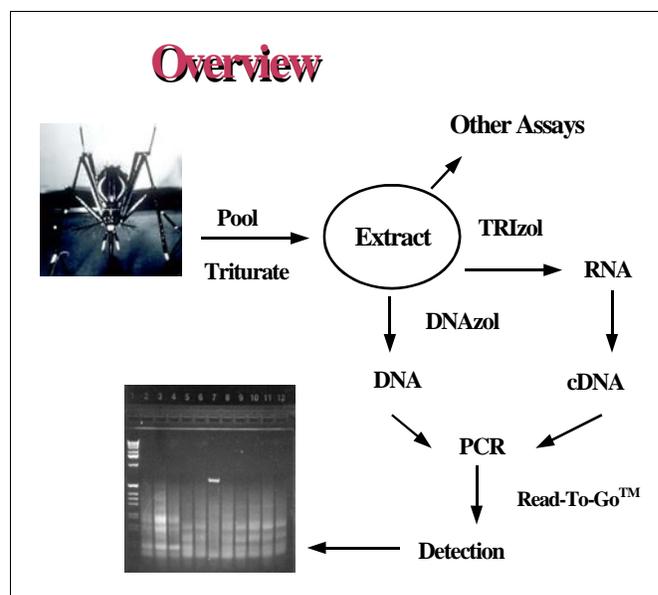


Fig 1. Methodology for field RT-PCR/PCR diagnostics.

The use of prepackaged, temperature stable “ready-to-go” products eliminates the need for mixing reagents, thus reducing cross-contamination and potential human error. These lyophilized reagents and pre-cast systems simplify procedures and allow for personnel with minimal scientific laboratory skills to perform the procedures with only limited training. Interpretation of results will ultimately fall to the laboratory officer on the ground.

Disease surveillance is a critically important aspect of Preventive Medicine within the military. Without it, we would fail to keep up with the emerging and re-emerging arthropod-borne disease threats throughout regions of the world where deployed military units operate. The addition of RT-PCR in the field for identifying medically relevant pathogens can provide timely information to health care personnel and military leaders about relative disease risks to personnel in urban, periurban, and field environments. We have databases at our fingertips that compile disease threats for a given region of the world. These are available through media sources like the Armed Forces Military Intelligence Center and Disease Vector Ecology Profiles. Historical information is provided on vector/host pathogen relationships gained through vector competence studies, factors contributing to vector bionomics, such as the vectors proximity to the host, the feeding preference of the vector and the breeding habitat, and information on the seasonal distribution of the vector, based on wet and dry seasons or summer and winter seasonal abundance obtained through ecology studies, allows educated health risk assessments to be made regionally. This knowledge has set the foundation for transitioning PCR/RT-PCR

technology from fixed, environmentally controlled laboratories to remote tropical habitats and forward deployed operational areas where diagnostic field surveillance can be conducted (Figure 6). The results of extensive laboratory testing and multiple diagnostic field evaluations have demonstrated the feasibility of tailoring this technology for use in the field.

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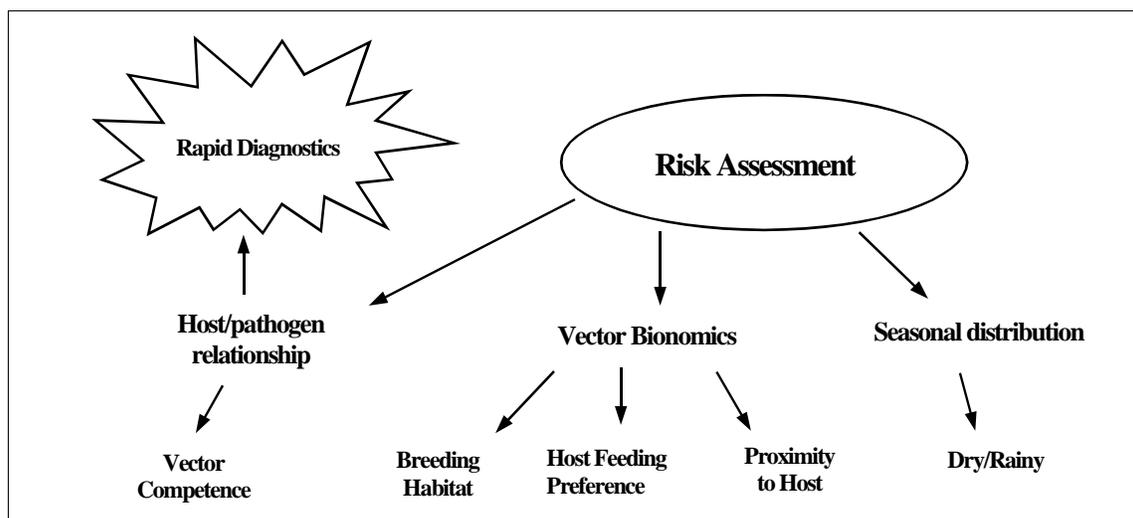


Fig 6. Arthropod-borne disease risk assessment.

The Role of the SMART-PM in the Pacific

MAJ Daniel Hamilton, MS, USA†

The U.S. Army Medical Department implemented the Special Medical Augmentation Response Team (SMART) team concept in 1999 in response to an ever increasing potential for environmental health threats to Department of Defense (DOD) personnel involved in support operations during natural disasters and/or humanitarian assistance missions. The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM-Pacific) is home to one of three SMART-Preventive Medicine (SMART-PM) units worldwide, and its role in the Pacific is a unique one, although its core mission parallels with the other SMART-PM units located at the USACHPPM in Aberdeen Proving Ground, MD and USACHPPM-Europe in Landstuhl, Germany. The team is primarily a specialty response team and a medical augmentation asset to the theater. It is tailored in personnel composition to the specific nature of the health threat or threats that might exist in a catastrophic incident, disaster, humanitarian operation, or Chemical Biological Radiological Nuclear and High Explosives (CBRNE) event. Composed of subject matter experts in the environmental health sciences, the USACHPPM-Pacific team can deploy up to nine preventive medicine professionals within 12 hours, after receiving official notification from higher authority.

The USACHPPM-Pacific SMART-PM team has routinely participated in the annual U.S. Forces-Japan Tri-Service mass casualty exercise, where each year one of the three armed service components in mainland Japan take the led for planning and execution of the exercise. In 2002 the U.S. Army-Japan led an exercise scenario involving a mock helicopter crash on Camp Zama's Kastner Army Airfield, which included mock damage to a partially occupied office building. In assessing the threat from such an event, one of the main concerns the SMART-PM team addressed was the need to assess for environmental hazards that might prevent workers or emergency personnel from re-entry to the office building. An Industrial Hygienist SMART-PM team member, using proper personal protective equipment (PPE), conducted simulated air monitoring throughout the building to detect

for hazardous airborne contaminants (see figure). The USACHPPM-Pacific team has a full compliment of "Level C" PPE, radiological, chemical, and hazardous substance detection devices, satellite communication, and hazard prediction assessment tools for use in responding to an incident and for providing decision support to the on-scene incident commander.



In addition to USACHPPM-Pacific's important role in protecting the health of our military force, the SMART-PM team has refocused much of its efforts in response to the more recent threats resulting from the war on terrorism, and in assistance of the force health protection planning needs of Army installations and resident DOD personnel in the Pacific. As local Installation Commanders move forward in their challenge to implement the new DOD Instruction 2000, 18 December 2002 (DOD Installation CBRNE Emergency Response Guidelines), USACHPPM-Pacific SMART-PM will be taking on an even greater role in the planning, training, and augmentation of medical responders whose initial actions are critical in mitigating the health threats from an attack employing a weapon of mass destruction. Plans include the team's support and expertise to be part of an integrated effort of the entire responder and civil support community. Special assistance can be rendered in consequence management and mitigation of environmental and medical health threats resulting from such an event.

Since 2001, the USACHPPM-Pacific SMART-PM has trained, equipped, and maintained a readiness posture to assist Commanders in responding to incidents and disasters that might occur in the Pacific region. Since September 11th of 2001, the role, mission, and utilization of the SMART-PM team has expanded. We are key participants in installation CBRNE planning, consultation, and scenario driven tabletop exercises for the near future. The SMART-PM team is firmly established as a necessary resource and source of expertise in the Pacific

Theater. It is hoped that a disaster or attack never occurs, but the USACHPPM-Pacific SMART-PM team is ready when the call comes.

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Closing an UCC: A Retrospective Analysis of Organizational Change

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Introduction

“In the world of change management, the principles are simple; the execution can be incredibly difficult.”¹ Change management theories and publications abound prescribing new and improved models for guiding an organization through change. The literature clearly depicts that for an organization to survive, “business as usual” is not an option. The use of these change management models in a prospective manner can help leaders, when faced with the need for organizational change, develop a rational, stepwise strategy for implementing change. This article provides a retrospective analysis of a major organizational change that began at the U.S. Army Medical Department Activity-Japan (USAMEDDAC-Japan) in 2001. This change is evaluated utilizing one prominent change model, “The Eight-Stage Process of Creating Major Change” developed by John P. Kotter and published in his book *Leading Change*.

Background

The USAMEDDAC-Japan, located on the Kanto Plain of the Island of Honshu, provides primary care, optometry, behavioral health, and physical therapy services to a beneficiary population of over 5,000 covered lives. A pharmacy, radiology department, and a laboratory support these services. The military referral centers are the 374th Medical Group at Yokota Air Force Base, Yokosuka Naval Hospital at Yokosuka Naval Base, Naval Hospital Okinawa, and Tripler Army Medical Center in Hawaii. Travel times to Yokota range from 60 to 180 minutes, depending on traffic. Travel times to Yokosuka range from 90 to 180 minutes, depending on traffic. Referrals to Naval Hospital Okinawa and Tripler Army Medical Center require flights utilizing either commercial air or the military patient evacuation system.

Prior to 1 June 2001, USAMEDDAC-Japan operated an Urgent Care Clinic (UCC) which was open 24 hours a day, 7 days a week. Staffing for this clinic was

either organic family practitioners and internists from USAMEDDAC-Japan or providers from Branch Medical Clinic Atsugi, a Naval ambulatory care clinic located approximately 20 minutes from USAMEDDAC-Japan. Much of the time, these providers were not physically located in the clinic but were on-call. Supporting ancillary staff was on-call as well.

The UCC was resourced to provide acute minor illness care. Approximately 95% of the cases that presented were deemed nonurgent care that could be treated in the primary care clinic. However, the UCC often attracted Levels I, II, and III trauma (least to highest according to the Japanese classification system) cases as well as obstetrics (OB) patients in active labor.

Trauma cases and active OB cases presented an unacceptable level of risk both for the patients as well as the facility. Trauma cases such as penetrating stab wounds and motor vehicle accident victims with possible spinal injuries greatly exceeded the clinical scope and capacity of the UCC given that there was no surgery capability, inpatient capability, in-house radiology, or in-house laboratory support. The OB patients in active labor exceeded the UCC capability because there was no in-house or on-call obstetricians nor was there the equipment necessary to support neonatal crises.

Given this background information, the USAMEDDAC-Japan leadership determined that significant organizational and structural change must occur in order to reduce risk to both the patients and to the organization.

The following analysis retrospectively examines leadership actions compared against “The Eight-Stage Process of Creating Major Change” developed by Kotter. Table 1 (following page) depicts Kotter’s eight-stage process.²

Establishing a Sense of Urgency

Kotter points out that significant change is difficult

unless key leaders of the organization are convinced that the status quo is not a viable option.³ The appropriate sense of urgency mandating change was set in place by two external agencies: Joint Commission Resources, Incorporated, and the U.S. Army-Japan Commander. Both agencies, although for different reasons, portrayed the status quo as an inappropriate option.

Steps	
1	Establish a Sense of Urgency
2	Creating the Guiding Coalition
3	Developing a Vision and Strategy
4	Communicating the Change Vision
5	Empowering Broad-Based Action
6	Generating Short-Term Wins
7	Consolidating Gains and Producing More Change
8	Anchoring New Approaches in the Culture

Table 1. The Eight-Stage Process of Creating Major Change

During consultation provided by a representative of Joint Commission Resources, Incorporated, it was noted that USAMEDDAC-Japan was practicing out of their scope of care by receiving patients when not appropriately resourced for the types of emergencies that were presenting for care. In her published report, the consultant emphasized that USAMEDDAC-Japan must dispel the myth that it had an emergency room. She stressed that receiving patients in the UCC that exceeded USAMEDDAC-Japan's scope of practice violated continuum of care standards. Further, even though the organization's scope of service clearly delineated the type of patients that should not be brought to the clinic... "the (host nation) ambulance system does not always heed this information and the community does not readily understand (or maybe accept) these criteria."⁴ Further, the reception of patients exceeding the USAMEDDAC-Japan scope of service greatly increased the probability of negative outcomes and could potentially put the organization's accreditation at risk.

The Commanding General of U.S. Army-Japan located on Camp Zama, directed immediate change when he learned that the USAMEDDAC-Japan ancillary staff (laboratory, pharmacy, and radiology personnel) were on-call every other night, if not every night, given the staffing

levels of low-density military occupational specialties in these departments. For example, the radiology department was staffed by two enlisted soldiers. If both were present for duty (no leaves or temporary duties), they each would perform their normal duty hour functions and then be on-call the remainder of the 24-hour period every other day. When one was not present for duty, the remaining soldier remained either in the clinic or remained on-call 24 hours a day until the other radiology technician returned. This arrangement, over a 3-year tour, placed an incredible burden on the junior staff. Concerned about the quality of life for these soldiers, the commanding general directed an immediate change.

The sense of urgency, in addition to promoting the necessity for the change, provided the secondary benefit of preventing the "paralysis of analysis" syndrome often effecting organizations considering change. Successful change requires prompt, crisp decision-making executed at a blistering pace.⁵ This urgency helps the change effort to gain momentum and assists in overwhelming those resistant to change.

Creating the Guiding Coalition

This stage of the change management model can only be successful when a coalition of people with strong position power, broad expertise, leadership ability, and high credibility develop a common goal.⁶ The creation of this guiding coalition to effect this significant restructuring of health care delivery to the U.S. Army-Japan community corresponded with two major organizational events at USAMEDDAC-Japan: (1) the unit's Change of Command and (2) the 2001 Strategic Planning Conference. Both events, occurring within 30 days of each other, served as major catalysts for change.

The Change of Command Ceremony brought position power to a clinical leader who had personally witnessed the inherent dangers of conducting after hours care in a clinic that was not resourced for the conditions with which patients presented for care. In addition to simply position power, however, the new commander brought both clinical expertise and credibility to the project. Well respected throughout not only the clinic, the new commander left little doubt in the community's mind that the change was not intended to be "just another erosion of benefits" but a giant step toward enhanced patient care.

The organization's 2001 Strategic Planning Conference generated a strategic plan with four major goals, one of which was to "Restructure USAMEDDAC-Japan operational hours to maximize facility and staff capacity and meet or exceed TRICARE Access Standards." Members of the multidisciplinary group participating in the conference were the owners of key sub-processes involved in the delivery of after-hours care. They, too, agreed that the UCC was, at best, a risky operation that warranted closure. As key leaders in medicine, nursing, and administration, they readily accepted the role of the guiding coalition to effect the change.

Develop a Vision and Strategy

Kotter states that "...a good vision can help clear the decks of expensive and time-consuming clutter."⁷ Table 2 depicts Kotter's characteristics of an effective vision.⁸ The participants in the 2001 Strategic Planning Conference achieved the six characteristics in a simple, but profound, vision statement: "To deliver premier primary health care."

Imaginable
Desirable
Feasible
Focused
Flexible
Communicable

Table 2. Characteristics of an Effective Vision

Premier primary health care conveyed a future (but not too distant) state. Premier primary health care was extremely desirable to both the staff and the community. It was a realistic, attainable goal. The vision provided focus. If a decision at hand did not contribute to the delivery of premier primary health care, it was subordinated to one that did contribute. The vision was flexible enough to allow an empowered staff to work toward a common goal. Leaders at all levels were encouraged to take departmental actions or make process improvements that contributed toward vision achievement. Finally, the vision was easy to communicate. Six words that were easily memorized provided the azimuth upon which this organization was to travel.

The final aspect of this vision was that it was also an exclusionary statement. It admitted to the community that USAMEDDAC-Japan could not be "all things to all people." It could not provide most specialty care, inpatient care, and sub-specialty care. Most of all, it could not provide emergency care. The vision conveyed to all stakeholders that USAMEDDAC-Japan could not provide the full spectrum of health care services, but for what it was resourced to provide, it would deliver in a world-class manner.

Communicating the Change Vision

To convey the change vision to two key groups of stakeholders, the leadership of USAMEDDAC-Japan relied mainly on two of seven of Kotter's key elements of effective communication of vision: multiple forums and repetition.⁹ First, leaders of the change had to ensure that the internal USAMEDDAC-Japan staff bought-in to the change. This was accomplished through internal briefings, staff meetings, and articles in the organizational newsletter. In retrospect, this group should have received more focused emphasis. However, with only a few exceptions, organizational buy-in was achieved.

Second, an extensive marketing effort began with the conduct of a focus group made up of community leaders. This group was allowed to read anticipated press releases, discuss their concerns, and provide feedback on the plan from the customers' perspective. The group provided meaningful input that was then worked into the plan before the first press release was published. All available avenues including newspaper articles, television interviews, community briefings, and website postings served to communicate the need and urgency of the change.

Empower Employees for Broad-Based Action

Kotter identified four barriers to empowerment: (1) formal structures make it difficult to act; (2) a lack of needed skills undermines action; (3) personnel and information systems make it difficult to act; and (4) bosses discourage actions aimed at implementing the vision.¹⁰ Of the four, the one with the greatest impact during this period of change was existing structures.

From a structural perspective, the leadership at USAMEDDAC-Japan needed to merge two very

divergent emergency medical service (EMS) systems: the Japanese model and the American model. In the Japanese EMS model, ambulances respond to an emergency call and provide on-scene resuscitation and assessment. Simultaneously, the ambulance driver contacts a centralized medical dispatcher and provides information concerning the patient's condition. The dispatcher then finds a hospital with both the capacity (open bed-space) and the capability (in-house specialist[s]). Once that hospital is determined, the dispatcher then notifies the ambulance that, in turn, begins transport. Although sometimes time-consuming at the site of the emergency, the patient is assured that the hospital to which they are taken can meet the full spectrum of their medical needs with in-house assets. Likewise, the hospital has full notification and can adequately prepare to receive the patient.

By contrast, the American model calls for the immediate transport from the site to a designated hospital that may or may not have the necessary bed-space to receive the patient and may or may not have the required specialists immediately available.

In closing the UCC and thus relying almost exclusively on Japanese Hospital Emergency Departments, the leadership had to break down the barriers that separated the two systems. Consequently, the clinical staff and the EMS staff at USAMEDDAC-Japan developed a process so that when a USAMEDDAC-Japan ambulance responded to an emergency, the emergency medical technicians would call back to the USAMEDDAC-Japan shift leader who would fill the same role as the central dispatcher. Further, so that the Japanese hospitals could be fully prepared for the patient's arrival, bilingual transfer sheets were developed. The transfer sheets were faxed to the gaining facility and arrived before the patient.

Employees at various levels were empowered and entrusted to make the change successful. Empowered to break down the structural barriers that hindered change, the staff effectively promoted the change. Further, they assumed the role as formal and informal marketers either by giving presentations or by their interactions with individual patients who presented for care.

Generating Short-Term Wins

Kotter gives three characteristics for a good short-term win: (1) it must be largely visible; (2) it must be unambiguous; and (3) it must clearly relate to the change.¹¹ Perhaps the short-term win that most positively affected the change and meets Kotter's criteria was the signing of a memorandum of understanding (MOU) for the provision of health care services with Kitasato University Hospital on 11 December 2001. Prior to the signing of that MOU, no formal, written agreements existed between a military medical treatment facility on Honshu, Japan, and a Japanese Hospital.¹²

The signing of this agreement was largely visible among Americans and Japanese in this area. To the Americans, the signing signified a formal arrangement that ensured the U.S. Army-Japan community that trauma care was readily available (only 8 minutes from Camp Zama by Ambulance). To the Japanese, the signing of the agreement signified a new partnership between Eastern and Western medical systems but at the local level.

Now, only 2 years after the closure of the UCC, six additional Japanese Hospitals have joined USAMEDDAC-Japan's informal network. Now eight facilities ranging from hospitals with fewer than 25 beds to a hospital with over a thousand beds provide the U.S. Army-Japan community the full spectrum of health care needs, all within 20 minutes of Camp Zama.

Consolidating Gains and Producing More Change

Kotter depicts that a successful change effort must "tackle additional and bigger change projects" in order to maintain the momentum.¹³ Avoiding complacency with the change and charging forward in the endless pursuit of excellence creates numerous challenges. This is the stage of Kotter's change management model in which USAMEDDAC-Japan is currently operating. Ongoing change projects nested within the larger and foremost change include the following initiatives: (1) the evolution of interpreter support from a cadre of volunteer interpreters who only provide on-site medical translation to a staff of eight professional interpreters who not only interpret but handle all billing issues as well as documentation of care provided in Japanese hospitals; (2) the greatly enhanced

patient monitoring that occurs when Americans are admitted to Japanese Hospitals; and (3) a greater reliance on host nation hospitals for care beyond emergencies to include specialty, diagnostic, and inpatient services.

Anchoring New Approaches in the Culture

The closure of USAMEDDAC-Japan's UCC and the corresponding shift to a greater reliance on Japanese hospitals is still in the process of being anchored in the culture. Approximately one half of USAMEDDAC-Japan's beneficiaries move away from Camp Zama every 3 years. For this subset of the beneficiary population, the new culture will be firmly grounded by the summer of 2004. By that time, most of those who remember USAMEDDAC-Japan having a 24-hour a day, 7 day a week UCC will have rotated from Japan. After that, the reliance on host nation care will be the only system the newcomers will have known during their time at Camp Zama. For the subset that makes up the other half of USAMEDDAC-Japan's beneficiary population, the complete change will take 5 years (or Summer 2006) as a minimum due to current policies concerning the length of assignments for this group.

Realistically, the new culture may take 10 years to be fully grounded. This significant amount of time, however, is not inconsistent with Kotter's change model. In fact, he notes that culture only changes after the affected people's actions and behaviors change.¹⁴ Throughout that long process to anchor the culture, one action must remain constant: marketing the change both formally and informally and also internally and externally. For USAMEDDAC-Japan specifically, this means that the leadership for the next 8 years or so must continually market the fact that the U.S. Army-Japan community has access to the right care, at the right time, and in the right place using the vast resources of the host nation hospitals "just outside the gate."

Conclusion

The retrospective review of the steps taken at USAMEDDAC-Japan depicts that all eight of the steps of Kotter's Eight-Stage Process of Creating Major Change were followed, albeit some to a greater level than others.

Although this eight-stage process was not used prospectively as a strategy map to achieve the change, appropriate actions did occur and continue to occur to this day at USAMEDDAC-Japan. However, while significant organizational change can happen in the absence of such a prescriptive format, the use of change management models such as Kotter's to guide organizational change can help ensure that the change is conducted in a complete, methodical, and rational manner, thereby enhancing success of the change effort.

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The DOEHS Program in the Pacific Theater

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Introduction

Soldiers deployed in support of mission objectives are often confronted with numerous and diverse environmental and occupational health threats that can immediately impact on the health of the soldier, and subsequently mission accomplishment. Exposure to air, water, and soil contaminants, as well as other disease and nonbattle injuries (DNBIs), have plagued fighting forces throughout history. Soldiers will continue to engage in worldwide conflicts and “support and stability” operations that will forever subject them to DNBIs.

By assessing preventive medicine lessons learned from operational deployments coupled with using the latest technical field medical health surveillance equipment, the U.S. Army Center for Health Promotion and Preventive Medicine-Main (USACHPPM-Main) developed and instituted a proven and viable program referred to as the Deployment Occupational and Environmental Health Surveillance (DOEHS) program. This program compliments other field preventive medicine initiatives, and is an assertive effort to promote and sustain the health of the great soldiers that risk their lives in the name of freedom.

Discussion

The USACHPPM-Main serves as the headquarters element for three continental United States and two outside continental United States-based subordinate command units. Each subordinate command has been charged with implementing all aspects of the DOEHS program within their respective area of operation. As a subordinate command, the USACHPPM-Pacific is responsible for implementing the DOEHS program within the Pacific Theater for table of organization and equipment preventive medicine personnel assigned to the U.S. Regular Army, Reserve Components, and National Guard units. Qualified USACHPPM-Pacific instructors who received training in DOEHS provide didactic and practical

instructional training to units assigned field preventive medicine personnel. Once trained in all aspects of DOEHS, these preventive medicine personnel become responsible for performing DOEHS in the field environment. Health surveillance of water, soil, air, toxic industrial materials, as well as surveillance of the multitude of DNBIs that can debilitate the strength of fighting forces, are routinely monitored through the DOEHS program by these trained and competent field preventive medicine assets. Armed with the latest advances in technological health surveillance equipment organic to the DOEHS program, these trained preventive medicine personnel strengthen the footprint of force health protection in operational areas within the Pacific Command. Preventive Medicine Detachments in Korea, as well as Divisional preventive medicine assets in Hawaii have received the benefits of DOEHS training by USACHPPM-Pacific DOEHS instructors. In addition to DOEHS services provided in the Pacific Theater, preventive medicine personnel trained in DOEHS have provided environmental monitoring and surveillance in the Balkans, and Southwest Asia. Environmental samples have been taken and analyzed from Bosnia, Kosovo, Macedonia, Afghanistan, Albania, Uzbekistan, Pakistan, Kuwait, Saudi Arabia, as well as other areas throughout the world. The DOEHS program has been instrumental to commanders by providing health threat intelligence that informs them about the occupational and environmental health risks at a particular location prior to deployment or occupation within the area. The DOEHS program is a proven force multiplier that enhances the warfighters capability to fulfill mission requirements by minimizing health risks exposure (see examples on the following page).

Conclusion

As the Army continues the transformation process, force health protection will play a major role in ensuring military success at all operational levels throughout the transformation process. The DOEHS program will

DOEHS Equipment has given Preventive Medicine Personnel A Fighting Edge in Combating DNBI



Airmetrics Mini-Vol

Used to sample particulate matter in the air.



Multi-Rae Plus

Possesses a photo ionizing detector used to detect the presence of hydrocarbons, LEL, CO, NO₂, and O₂.



Drell 2010

Water quality testing kit. Capable of performing over 120 possible tests.



Gastec Air Pump

Used with direct reading tubes to determine concentrations of chemicals in the air.

Soldiers in Action using DOEHS Equipment



Preventive medicine personnel training on the Mini-Vol. A DOEHS equipment used to monitor air for the presence of particulate matter.



Preventive medicine personnel training on DOEHS equipment used for the purpose of conducting water monitoring and analysis.

continue to be an integral cornerstone within the concepts of force health protection. It is a program specifically designed and oriented to enhance the health and readiness posture of our deployed forces. The USACHPPM and its subordinate commands will continue to strive to develop health related programs such as DOEHS, that will strengthen the bridge of health in support of the warfighter.

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Reflections on Leadership Responsibilities - Creating an Atmosphere of Change

LTC Richard A. Jordan, MS, USA†

Managing change can challenge even the most gifted of leaders under ideal circumstances. Paramount to success is first the realization of a need for change, then validating that need in the organization. Vision and mission statements must effectively communicate these needs to all of the stakeholders, uniting leaders and staff in a common effort toward organizational change. This is no small task when the status quo is historically grounded and deeply rooted with vested interests. Add uncertainty and the fear of the unknown engendered when the proposed changes involve integrating health care services between two entirely differing cultures, and the task of leading can approach the insurmountable.

The undertaking requires time, courage, and ultimately, a willingness to become vulnerable. This article is an attempt to share as honestly as possible this experience, limited to the authors' perspective, of leading the U.S. Army Medical Department Activity-Japan (USAMEDDAC-Japan) toward and through the process of a major restructuring in the manner in which emergency health care services were provided to the community.

Re-thinking the Mission Statement

The USAMEDDAC-Japan was essentially a large family practice clinic serving also as 24/7 acute care center, and first line triage center for a population of approximately 13,000 patients. Though after-hours call was equally shared among physicians from two military clinics, the burden of providing support staffing fell fully on USAMEDDAC-Japan personnel which was not staffed to provide 24/7 lab, X-ray, or nursing support. Moreover, physician coverage was in-house only part time, being essentially dictated by distance, travel time, and economic considerations. For the majority of patients, this posed no problem other than the inconvenience of waiting to be seen. The only on-site after hours staff included two medics and an ambulance driver, which were present on a 24/7 basis. Patients primarily accessed the clinic on a walk-in basis and would be initially assessed by

the Medic who then notified the on-call physician. An evaluation was done, care rendered, and the vast majority of patients went home very satisfied.

Though well-equipped to function as an outpatient primary care clinic and offering numerous services not generally available to the average American in such a conveniently co-located manner, USAMEDDAC-Japan was stretching far beyond both its physical and staff capabilities in trying to serve the local community in this manner. The situation likely evolved as the product of continued adherence to historical paradigms bonded by cultural familiarity to what the local community demanded. "It's American," "they speak my language," "I can be understood," was reinforced by fears of the unfamiliar territory just outside the gate. Various anecdotal stories existed questioning the quality of Japanese health care services, further reinforced community reluctance to embrace the Japanese health care system. Coupled with the economic disincentives imposed on non-Japanese accessing their system are the major influences driving the evolution of the health care delivery model present on my first day on the job. Although the arrival of an ambulance delivering a trauma or chest pain patient undeniably constituted a gross overstretching of staff and facility capabilities, the "real disasters" were relatively rare. The Japanese hospitals were willing to assist in those instances, thus it's reasonable to conclude that "this system works, at least most of the time and people seem happy, so why change it." However, such a stance ignored the inevitable possible outcome of injury, disability, or even death, resulting from a failure to properly manage a transfer of a critically ill patient to an appropriate level of care.

Exploring the Reasons of Why?

The USAMEDDAC-Japan is somewhat geographically isolated, not so much by distance, but by the time required to travel otherwise modest distances. The 1 to 2 hour travel time to the Community Hospitals operated by our sister services, coupled with their own

limited scope of services, argued against their routine use in virtually all instances of emergent and even most urgent situations. Community reluctance to access the Japanese emergency system had consequently lead to the precedent of performing first line triage and stabilization and was such a well-established community expectation that the clinic had become know as the “Emergency Room (ER).” It was the realization of arguably poor outcomes emerging from these facts that we were English speaking and attracting patients 24/7 without the benefit of adequately trained personnel and equipment, which forced a rethinking of my initial acceptance of this model.

Reviewing the occasional patient complaint and risk management documents heightened my awareness of the risks we were taking. Digging further, the need for change was driven home after reviewing several instances of poorly coordinated transfers of potentially seriously ill patients to the local Japanese hospitals. A comprehensive defining of the facility’s scope of practice and education of both staff and patients as to the capabilities and limits of the surrounding Japanese medical community was needed. Rather than being everything to everyone, refocusing on core competencies and fostering a closer liaison with the local Japanese emergency medical system became the obvious solution. The challenges were great to include an almost nonexistent host nation liaison structure to support that liaison and an entrenched community reluctance to embrace Japanese medical care.

Paradigm Shift

Upon assuming command of USAMEDDAC-Japan and the position as Surgeon, U.S. Army-Japan in February of 2001, the need to integrate into the Japanese emergency medical service (EMS) system was foremost in my mind. Slowly, the many questions asked over the preceding 18 months, had turned from concept to data-gathering and analysis to discussion and ultimately, to a shift in organizational consciousness from “we’re doing this because it’s the best we have,” to one of “why do we do it this way?” Arriving here was difficult for many stakeholders and represented a major milestone along the continuum toward meaningful systems improvement. Unfortunately, it was also the filing of two multimillion-dollar lawsuits against USAMEDDAC-Japan staff that likely assisted in this cultural shift.

Even still, defining the issues and educating

stakeholders required intense effort on the part of the organization’s leadership. Understanding and defining the issues, then producing a clear picture of what is important to the staff both personally and professionally, while at the same time meeting the needs and expectations of external customers took many hours of listening. Promoting an environment of open dialog was critical to achieving a better understanding of key concerns and evolving conflicts inherent in promoting change.

Utilizing patient focus groups, anonymous complaint lines, investigating inspector general and congressional inquires and, my favorite, numerous hallway discussions with individuals, be they patient, member of the professional, technical or clerical support staff, a supported unit commander, or community leader, the number one priority – delivering safe patient care – emerged as a unanimous priority. Another point of general consensus expressed among the various stakeholders was that the Japanese medical system seemed confusing, sometimes archaic, and not very user friendly. Though valuable and well worth the effort, the picture was not complete without some idea of how the Japanese medical community itself felt about taking care of Americans.

Educating Ourselves, about Ourselves

As difficult as change is, the path is easier to conceive when viewed from a monocular perspective. But the important questions had only been asked from the within the “American” framework of reference. Little effort had gone into addressing and identifying the perceptions which the Japanese medical community held of USAMEDDAC-Japan. Our discovery was that the often quoted concept in the American community of Japanese Medical care, in reality, had a counterpart within the Japanese medical community concerning “us.” As discussions progressed, what began to emerge from the Japanese perspective was, for good reason, ample justification to question both how USAMEDDAC-Japan practiced medicine, how patient expectations were set, and certainly reason for the Japanese to decline to participate in any preferred provider network. Although always highly respectful, it was obvious that significant numbers of the local Japanese medical community would rather not engage in the care of American patients under any type of agreement. In the words of the local Medical Society leadership, “many of our members prefer not to have American patients

preferentially referred to us because they are demanding, difficult to communicate with, and have a nature to sue.” This same Japanese delegation, however, was quick to add that they had no problem supporting the Camp Zama military community as a humanitarian gesture in a time of emergency or crisis. And, by the way, “if the Americans are really serious about improving emergency care, they should try and learn to work with our system, not in spite of it.”

This theme came up (very politely, I must emphasize) during several meetings with numerous well-meaning and well-recognized leaders in the Japanese EMS system. Most notably were Dr Kazui Soma, Deputy Director, Emergency Center Kitasato University, and Prof of Emergency and Critical Care Medicine, and Dr Hiroshi Imai, Asst Prof Emergency and Critical Care Medicine. Very valuable friendships emerged from these talks and opened the door for further exchanges of ideas and the ever so valuable opportunity to network with our Japanese counterparts, many of whom had trained in both Japan and the United States. Ultimately, this valuable insight helped to frame the issues and define important implications of the changes we were proposing. A greater appreciation of the enormous challenges which lay ahead in achieving integration of emergency services – our primary goal – emerged.

The Japanese Way: Defining and Bridging the Gap

No matter who you are or how much you earn, all citizens will have access to the same level of medical care. This is the basic philosophy of the Japanese people, and the mission of the Japanese ministry of health and welfare is to realize that within the community of hospitals. Considering global standards, one fact became clear, the average Japanese citizen has ready access to a sophisticated medical system very comparable to the U.S.¹ At the root of the challenges ahead lay two issues which had to be addressed individually. One, a mutual understanding of each other’s capabilities was sorely lacking and needed community enlightenment and two, the already ill-defined concept of “quality,” which contributes so much to perception building, further confused by differing cultural norms of what constitutes “good emergency medicine” had to be demystified. Addressing the latter certainly would prove the more difficult.

Unlike the general or community hospital in American communities, each operating an ER common, the 13 Japanese hospitals in our area tended to be highly specialized.¹ All 13 shared a rotating call schedule in which only two would act as primary sources of emergency care at any given time. In general, one would accept trauma emergencies – the other medical emergencies. These smaller hospitals are backed up by the larger designated level III emergency centers, which remain staffed 24/7. For our area, that was Kitasato University Hospital.

Triage of emergencies begins in the field, at the point of injury or origin of call. Paramedic units are dispatched with great efficiency, nationwide averaging approximately 6 minutes from time of call to arrival at the scene.² From there, marked differences in emergency medical treatment standard operating procedures are worth noting. The Japanese paramedic, trained in initial evaluation and triage, will contact his central dispatch reporting the status of the patient’s initial survey and chief complaint. From there the system begins to determine the appropriate facility for transport or disposition. In some instances, a physician may be dispatched to the scene first rather than transporting to a hospital. For the stable patient, this process may take up to an hour or more because (1) rather than utilize the ER for stable nonemergent condition, patients are triaged to a facility capable of evaluating the complaint and willing to accept the patient and (2) no hospital is obligated to accept any given patient. Thus, waiting for acceptance can be time consuming, and consequently, rather unnerving to the average American. The more critically ill or potentially unstable patient, however, is transported rapidly to one of the primary centers or if indicated, directly to a level III facility.¹

For the Japanese, use of ER for nonemergent care is highly discouraged, and consequently, rarely occurs. Additionally, the average citizen appears to enjoy relatively unhindered access to physicians as suggested by the average per capita physician visits of 16, well above that of the U.S. and other developed countries and financial constraints are overcome by a national health insurance system which eliminates many of the anxieties associated with medical care in the U.S.³ As a result, emergency centers tend to be small by U.S. standards, but well equipped to meet their intent. Kitasato University Hospital for example, as a level III trauma center, has a

very well-equipped ER complete with two operating rooms, its own radiology suite and catheterization lab. On average, they receive eight to 10 patients a day.⁴ There are no crowded ER waiting rooms or open bay holding and examination areas common to U.S. Hospitals. In part, this is due to the 13 other smaller hospitals that make up the extensive triaging complex and, to a greater extent, coupled with a plentiful supply of private physician offices and clinics offering walk-in services.

Conclusion

A very complex and difficult picture emerged from the first inquiry to the end product of revamping the business model at the Camp Zama USAMEDDAC. At the root lay many challenges; however, the most glaring being that the Camp Zama community had understandably through time remained “culturally” isolated from its neighbors. As leaders, we discovered that the process of listening to our stakeholders, though sometimes very painful, was worth the efforts and the rewards could never be measured in simple terms. For USAMEDDAC-Japan, the effort culminated in the signing of a landmark first Memorandum of Agreement with Kitasato University Hospital to provide emergency services to the Camp Zama Community.⁵ Whether necessary or not, it marked the beginning of a cultural blending which will hopefully outlive the current inhabitants.

Changes began only when the realization of need turned into action. Here, substantial barriers existed which

might thwart every effort since “realization” does not necessarily lead to concurrence, for some otherwise well meaning proponents of change may develop adversarial positions, as described by Thomas Sowell in “*Conflict of Visions*” *Ideological origins of Political Struggles*. For Camp Zama, I anticipate many future challenges in continuing to integrate with the Japanese EMS system, however, I remain confident that the direction taken was, and will remain, the best choice.

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