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U.S. Army Public Health Command

Winter 2015

AIPH holds first science showcase

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- Army injury prevention
- USAPHC Ebola response

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(COVER) Maj. Gen. Dean Sienko, former USAPHC commander, congratulates Nikki Bass, environmental chemist, for her efforts to organize the first AIPH Science Showcase. (Photo by Christina Graber, Visual Information Division)

contents

USAPHC
U.S. ARMY PUBLIC HEALTH COMMAND

AIPH shows off its science

JANE GERVASONI
EDITOR

Providing scientists at the U.S. Army Public Health Command's Army Institute of Public Health the opportunity to showcase their scientific and technical work was the primary goal of the AIPH Science Showcase held Dec. 11 at Aberdeen Proving Ground–South, Maryland.

Dr. Bradley Nindl, AIPH scientific advisor, was enthusiastic about the response of the scientists and technical personnel at the AIPH on the idea of holding a showcase of their work.

"More than 71 posters and oral presentations from each of the portfolios in the AIPH were submitted by our personnel to be included in the showcase," Nindl explained. "Our biggest challenge was scheduling all of the submissions to fit in one day."

"With the new conference regulations, fewer of our scientists have the opportunity to present posters and papers at technical events," said Nindl. "The showcase provided an opportunity to award and recognize excellence in our scientific community."

The coordination of the event was directed by Nikki Bass, an environmental chemist in the Environmental Health Risk Assessment Program.

"This was a great opportunity for me," explained Bass. "I was able to see what a wide range of programs and specialties make up the command—it was truly eye-opening."

"The Science Showcase was designed to provide our AIPH scientists greater exposure to the science and technical work outside their individual programs and portfolios," she continued.

Coordination of the event began in August as Bass pulled together a team representing all aspects of the command from the technical to the administrative.

"All the portfolios provided representatives who helped in developing the program

for the showcase," Bass said. "We also involved individuals from our visual information, marketing, personnel and strategic initiatives office to ensure that every group within the command was involved in showcasing our science."

Ten judges from the Edgewood Chemical Biological Center; Johns Hopkins Bloomberg School of Health; the Medical Research and Material Command; the Defense Health Agency; the Medical Research Institute of Chemical Defense; and the Office of the Surgeon General evaluated oral and poster presentations and gave special recognition to several outstanding presenters.

The judges were quite enthused about the opportunity to learn more about the AIPH mission and its science.

"I am extremely impressed with the quality of the work done at the Public Health Command," said Suzanne Milching, director, Program Integration, Edgewood Chemical Biological Center, who was a showcase judge. "Seeing the science being done has opened my eyes to possibilities for future collaboration between our organizations."

The judges were not the only ones who were interested in attending the showcase.

"More than 250 AIPH employees visited the showcase," according to Bass. "We were very pleased by the attendance. If we are able to do this again, we may need to look for a larger venue."

Will there be a second annual showcase? The answer is yes, according to Nindl.

"We received a lot of good feedback from our senior leaders, the judges and the attendees," said Nindl. "Sharing our science with our employees will help us expand our ability to collaborate internally, and expanding the showcase to other organizations on the installation will enhance what we do at Aberdeen Proving Ground."

Maj. Gen. Dean Sienko, former USAPHC Commander, said he was elated about the day's activities.

"In order for the U.S. Army Public Health Command to be viewed as a credible, nationally recognized organization, we must have events like this," said Sienko. "Today was a remarkable and pioneering day, and we are a better organization than we were yesterday." ▲

Nikki Bass heads showcase

Nikki Bass, has been working at the U.S. Army Public Health Command's Army Institute of Public Health for almost five years. She was motivated to become more involved with the state of the science at the AIPH by learning about the importance of knowledge collaboration as she interacted with coworkers in the Environmental Health Risk Assessment Program.

She says she "got volunteered" to work on the AIPH Science Showcase, and from the first meeting she was hooked on the idea of sharing the scientific expertise of the command with her fellow workers.

Her primary job duties consist of researching emerging contaminants and supporting the Chemical and Material Risk Management Programs of the Office of the Deputy Under Secretary of Defense for Installations and Environment. She said that until she started working on the showcase, she had no idea of the wide variety of scientific expertise within the AIPH organization.

"I am so pleased that people are sharing their work at this event," Bass said. "This showcase has the potential to enhance what we do at the AIPH. It provides both military and civilian personnel with an opportunity to be recognized by peers in a professional setting and creates a foundation for future collaboration."

(PREVIOUS PAGE) Tim Bushman, an exercise physiologist in the Injury Prevention Program, discusses his poster with showcase attendees. (Photos by Christina Graber, USAPHC)

(LEFT) Dr. Bradley Nindl, USAPHC scientific advisor, addresses the audience at the AIPH Science Showcase.

SCIENCE SHOWCASE

recognizes outstanding presenters

CHANEL S. WEAVER
PUBLIC AFFAIRS OFFICE

Although the first Army Institute of Public Health Science Showcase, held Dec. 11, provided an opportunity for a multi-disciplinary array of employees to demonstrate the various scientific initiatives that Army Public Health Command participates in, there were several presentations that really impressed the event's attendees.

Ten judges, all comprised of scientific experts, awarded top honors to oral and poster presentations that were presented in an outstanding manner, demonstrated sound scientific content and also had a relevance to military public health issues.

Jessica Sharkey, of the Occupational and Environmental Medicine Portfolio, Environmental Medicine Program, received accolades for an oral presentation on the respiratory health of service members after deploying to Operation Enduring Freedom.

Likewise, Dr. Cheng Cao, a toxicologist in the Toxicity Evaluation Program in the Toxicity Portfolio, was commended for her poster presentation on a toxicological study and risk assessment of chemical, biological, radiological and nuclear materials used in commercial and military settings.

She said it was an honor to be recognized.

"This encourages me to continue with this line of research," Cao said.

At the conclusion of the day's activities, several presenters expressed their pleasure with the professional development gained by participating in the event.

"I was one of the poster presenters, and it was rewarding to meet various individuals today," said Jerrica Nichols, an epidemiologist in the Epidemiology and Disease Surveillance Portfolio. "The showcase allowed me to practice my public speaking skills, and allowed me to translate my science into a language that the general public can understand."

This sharing of science is important to USAPHC senior leaders, including John Resta, director of the AIPH.

"I learn something new at the USAPHC every day, and I am pleased that we had an opportunity to demonstrate the value of our organization today."

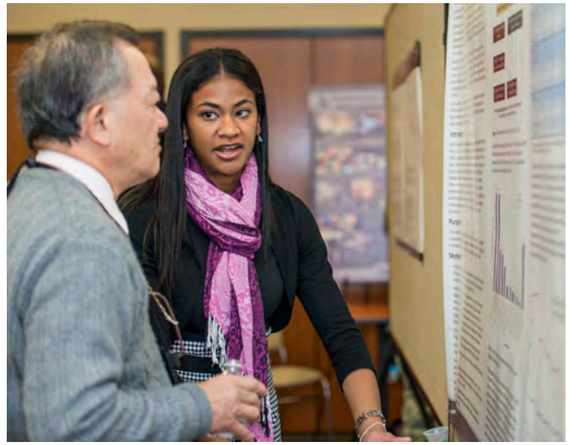
Dr. Bradley Nindl, scientific advisor at the USAPHC, said the opportunity to recognize outstanding presenters and share scientific material helped the command to meet its strategic objectives.

"We wanted to accomplish three things today: showcase our science, encourage cross-communication between Portfolios and recognize award winners," said Nindl. "We are truly appreciative of everyone's efforts to make today's showcase an outstanding event." ▲

Spc. Michael Murphy, LS Portfolio, received an honorable mention for his poster presentation at the AIPH Science Showcase Dec. 11. (Photo by Christina Graber, U.S. Army Public Health Command)

Science Showcase Photos

PHOTOGRAPHY BY:
Christina Graber



AIPH Science Showcase award winners

OUTSTANDING POSTERS

Maj. David DeGroot • EDS Portfolio
"Extremity Cooling Reduces Exertional Heat Injury Severity During Military Training"

Cheng Cao • TOX Portfolio
"Toxicological Study and Risk Assessment of CBRN Nanomaterials"

Valerie Adams • TOX Portfolio
"Evaluation of Subacute BTAT Toxicity in Rats and In Vitro Genotoxicity"

HONORABLE MENTION POSTERS (Contractors)

Alexis Bender • EDS Portfolio
"Perceptions of Prescription Drug Use Among Wounded Warriors"

Avni Patel • EDS Portfolio
"Surveillance of Causes of Fatal Non-Battle Injuries Army Soldiers Deployed for Operations Enduring Freedom (Afghanistan) and Iraqi Freedom/New Dawn (Iraq), 2001–2012"

Timothy Bushman • EDS Portfolio
"Injury Risk Associated with Functional Movement Screening in the United States Army"

HONORABLE MENTION POSTERS (Military & Civilian)

Spc. Michael Murphy • LS Portfolio
"Detection of Anaplasma phagocytophilum, Babesia microti, and Borrelia burgdorferi in Ixodes scapularis Collected from Locations Surrounding the Residence of the First Locally-Acquired Case of Human babesiosis in Maryland, USA"

Kevin Ulmes • HRM Portfolio
"Health Risk Assessment Methodology for Determining Residual Risks from Chemical Agents after Thorough Decontamination of Army Equipment"

Tyson Grier • EDS Portfolio
"Risk Factors Associated with Running Injuries in the United States Army"

OUTSTANDING ORAL PRESENTATIONS

Jessica Sharkey • OEM Portfolio
"Respiratory Health after Operation Enduring Freedom Deployment: Respiratory Symptoms and Obstructive Lung Conditions"

Theresa Jackson • HPW Portfolio
"The Effectiveness of a Tobacco-Free Medical Campus Policy on Secondhand Smoke Exposure, Tobacco Use Prevalence, and Health Outcomes among Military Medical Employees"

Dr. Bruce Jones • EDS Portfolio
"Effect of Body Mass Index and Physical Fitness on Injury Risk for Soldiers during Army Basic Combat Training"

HONORABLE MENTION ORAL PRESENTATION (Contractor)

Omar Rivera • HPW Portfolio
"Army Wellness Center Clients' Progress Towards Their Health and Wellness Goals"

HONORABLE MENTION ORAL PRESENTATION (Military & Civilian)

Ginn White • EHE Portfolio
"Water Reuse in Contingency Operations: Comprehensive Health Risk Management"

Lisa Ruth • EHE Portfolio
"Assessing Fish Consumption Risks at U.S. Army Garrison - Kwajalein Atoll"

David Kurk • LS Portfolio
"Increased Radiobioassay Analysis Capacity for Uranium in Urine in the Event of a CBRN Nuclear Incident"

(TOP) Dr. Valerie Adams, TOX Portfolio, was recognized for giving an outstanding poster presentation at the AIPH Science Showcase Dec. 11.

(BOTTOM) Dr. Bruce Jones, EDS Portfolio, was recognized for giving an outstanding oral presentation at the AIPH Science Showcase Dec. 11.

Public Health Command bids farewell to commander

CHANEL S. WEAVER
PUBLIC AFFAIRS OFFICE

Maj. Gen. Dean G. Sienko relinquished command of the U.S. Army Public Health Command and retired from the Army in a Jan. 6 ceremony at the Top of the Bay on Aberdeen Proving Ground, Md.

A host of attendees—including USAPHC Soldiers and civilians, dignitaries, family and friends braved the winter weather to witness the event.

Presiding official Maj. Gen. Joseph Caravalho, Jr., deputy surgeon general, congratulated Sienko and thanked him for his 33 years of outstanding service to the Army, and his extraordinary leadership at USAPHC.

"Maj. Gen. Sienko was instrumental in building strategic relationships with the U.S. Centers for Disease Control and Prevention and the Robert Wood Johnson Foundation to promote community health and wellness," said Caravalho. "He has served the U.S. Army Public Health Command, Army Medicine and the nation with distinction."

Sienko expressed gratitude for the opportunity to serve as the commander of the USAPHC for the past 20 months, and pride in the public health experts he led.

"It's been a true honor and privilege to lead this organization and serve with all of you," said Sienko. "I have been surrounded by the most gifted and talented public health staff," he said.

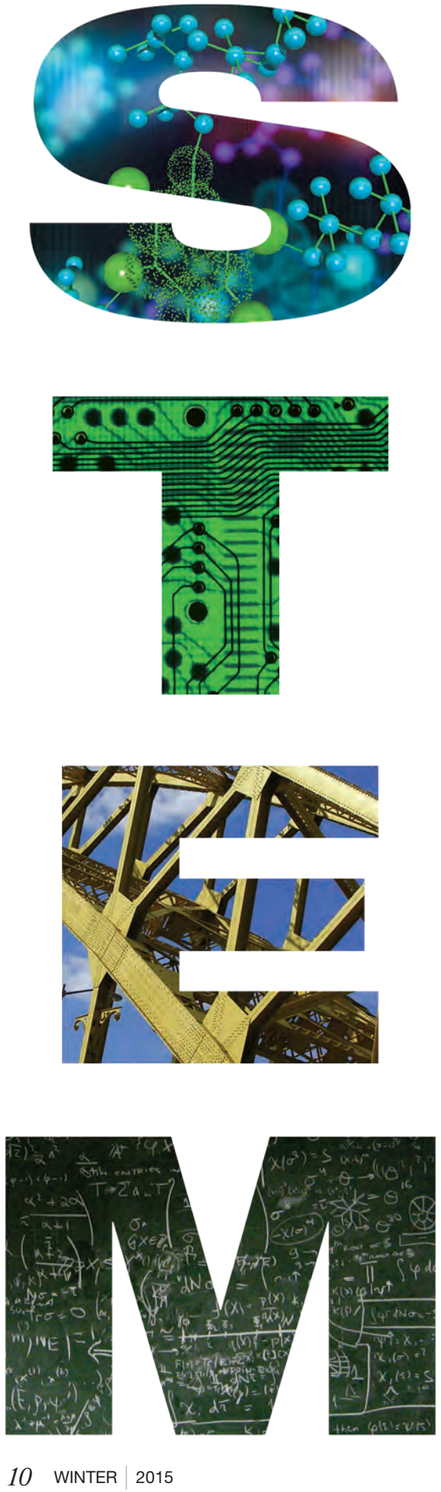
Upon his retirement from the Army, Sienko, who is a physician board-certified in general preventive medicine and public health, will serve as the Associate Dean for Prevention and Public Health at the College of Human Medicine at Michigan State University.

Col. John V. Teyhen, III, the former chief of staff of the organization, will serve as the new USAPHC commander.

Teyhen said he is looking forward to working with the members of the USAPHC team as the organization maintains a legacy of outstanding service to Soldiers and retirees, their families and Army civilians.

"I am sure this organization will continue to respond to worldwide public health issues and keep our Soldiers healthy," said Teyhen.

Teyhen is the 5th commander to lead the USAPHC. He heads a worldwide organization with approximately 3,500 Soldiers and civilians stationed in more than 100 countries. The USAPHC promotes health and prevents disease, injury and disability in Soldiers and military retirees, their family members, and Army civilians, and assures effective execution of full-spectrum veterinary services for the Army and Department of Defense. ▲



STEM Expo draws area students

JANE GERVASONI
EDITOR

More than 250 students from Harford, Cecil and Baltimore Counties learned a lot about the Science, Technology, Engineering and Mathematics that fuels what goes on inside the gates of Aberdeen Proving Ground South during the 2014 STEM Expo.

Technical experts in many fields from the U.S. Army Public Health Command contributed to the success of the TEAM APG STEM Expo Nov. 18.

Students from Perryville and North East high schools in Cecil County, Harford County's Edgewood and Fallston high schools, and the Paul L. Dunbar High School in Baltimore City attended the event at the Chemical Demilitarization Training Facility in APG South (Edgewood).

Suzanne Milchling, director of program integration for the Edgewood Chemical Biological Center, welcomed the students and educators telling them about the interesting careers at APG.

Milchling said the scientists and engineers of Edgewood collaborate with each other as well as other agencies around the nation and the world on projects large and small to make the world a better place.

In addition, Lt. Col. Cindy Landgren, veterinarian and military deputy of the Defense Threat Reduction Agency and former director of the Toxicology Portfolio at USAPHC, talked to the students about her career path and how much she enjoyed biology and the sciences.

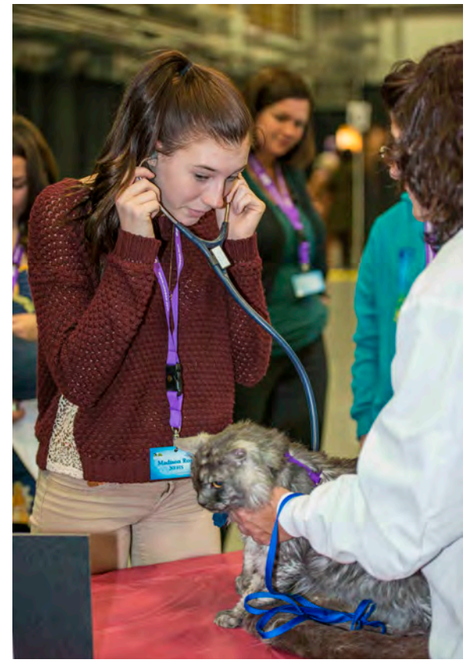
A member of the team that is developing a vaccine for Ebola, Lundgren shared how she started out as a veterinarian and never envisioned herself in a potentially life-saving position.

"Don't think that what you start out doing after high school or college is all you'll ever do," she said. "You never know what spark is going to take you to the next level. I had no clue where I would end up when I first joined the Army. But with the right training and education opportunities, I figured out over time that there are a lot of things I can do. And so can you."

The USAPHC experts featured hands-on demonstrations in areas from ergonomics and hearing to laboratory sciences and trash and recycling.

(RIGHT) Dr. Rebecca Benisch, U.S. Army Public Health Command veterinarian, uses her cat, Gandalf, to show students how to listen to a feline heartbeat during the 2014 Team APG STEM Expo on Nov. 18. (Photos by Christina Graber, Visual Information Division)

(BOTTOM) Capt. Thomas Sherwood, biochemist in the U.S. Army Public Health Command Quality Systems and Regulatory Compliance Office, explains how air, water and soil samples are analyzed during the 2014 Team APG STEM Expo on Nov. 18.



Col. Joanna Reagan, Health Promotion and Wellness Portfolio dietitian, armed with five pounds of sugar and a box of sugar cubes, challenged the students to guess how much sugar was found in various sodas and drinks that they consume every day while Maj. Thomas Jarrett, HPW behavioral health officer, led students through demonstrations about resiliency, thriving and health.

The epidemiology team, Esther Dada and Robert Cosgrove, helped students to respond to a fictional food-poisoning outbreak at a picnic. Students compared possible foods and who had eaten what foods to determine what caused the problem. The students saw how computers, mathematics and research were important to keeping people healthy in a real-world situation.

Students repeated words like "really neat," "WOW," "I didn't know that," and "this is great," according to Mary Nicholson a biology and environmental science teacher from North East High School in Cecil County.

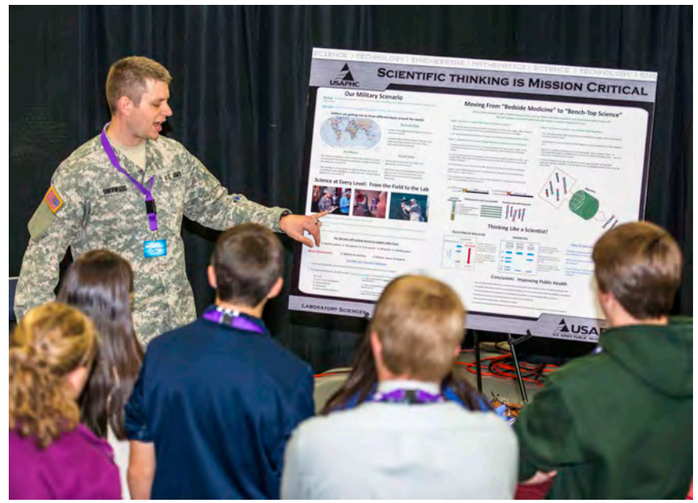
"This was such a great opportunity for these students," Nicholson said. "They are really interested and engaged."

One of the hits of the expo was veterinarian, Dr. Rebecca Benisch, and her cat, Gandalf—as the students called him the "military working cat." Benisch not only explained what you needed to study to become a veterinarian, but she also showed students how to do a hands-on exam of Gandalf.

More than 20 technical experts from USAPHC provided the hands-on demonstrations, and all enjoyed the experience of interacting with the students. They agreed that it was a worthwhile event for all participants.

Other organizations participating with the USAPHC at the STEM Expo included ECBC; DTRA; Joint Program Manager-Elimination; Program Executive Office—Assembled Chemical Weapons Alternatives; Chemical Materials Activity; and the Army Educational Outreach Program. ▲

Yvonne Johnson, APG News, contributed to this article.



NEWS AND NOTES
FROM AROUND THE COMMAND

Capt. Robert Cohen, a preventive medicine physician in the Epidemiology and Disease Surveillance Portfolio, wrote a commentary in the Baltimore Sun on "How environmental destruction sprang Ebola." The article was published Dec. 26, and can be accessed here: http://www.baltimoresun.com/news/opinion/oped/bs-ed-zoonoses-ebola-20141227-story.html. Cohen gave a presentation on the same topic at a science café held at the Bel Air Public Library on Jan. 28.

The Veterinary Services Portfolio is working with the U.S. Army Natick Research, Development and Engineering Center to perform a research project on Meals Ready to Eat shipping containers. NSRDEC is testing the durability of current solid fiberboard versus corrugated fiberboard. The rations will originate at Marengo, Ind., a Department of Defense-approved MRE storage site and be sent to one of our installations in Alaska, Washington State, Texas, and Georgia. NSRDEC is requesting a receipt inspection of the shipping containers by Food Inspectors at each location; coordination has occurred with Regional/Districts.

Col. Robin King and Chief Warrant Officer 5 Christopher Finch of the Veterinary Services Portfolio attended the Food and Drug Administration's Southeast Region Retail Food Safety Seminar in Savannah, Ga. in December. The FDA extended the invitation as an effort to recognize AIPH food protection collaborative efforts and to discuss food safety and defense with federal and state public health agencies. Attendees included representatives from FDA, U.S. Centers for Disease Control and Prevention and the National Association of County and City Health Officials and other state and food industry leaders.

The Toxicology Portfolio met with Johnson Control and other entities in November for final discussion of streamlining the installation of temperature/humidity probes for animal holding rooms. These new probes positioned at newly set optimal locations within each room are expected to reflect more accurate environmental conditions for the entire room than the existing probes. Firm coordination on installation schedule is required to eliminate adverse effect on animals currently housed and for new animals expected to arrive within a couple of weeks for a major long-term study using Japanese quails.

Kieran Lerch, Occupational Health Sciences Portfolio, assessed the optical radiation hazards associated with the TracER commercial laser system. This assessment was requested by the Defense Forensics Science Center, U.S. Army Criminal Investigation Command. The system is used by crime scene investigators as part of forensic examinations. Lerch measured the laser characteristics in order to verify laser classification and safe standoff distances.

Kelsey McCoskey, Occupational Health Sciences Portfolio, participated in the U.S. Army Corps of Engineers Industrial Ergonomics High Hazard Working Group teleconference. The USACE requested the assistance of the Ergonomics Program to provide guidance in developing and implementing the working group mission. USACE ergonomic injury data were reviewed. This collaboration is an opportunity to further develop the USACE ergonomics program with the ultimate goal of reducing employee work-related discomfort and injuries.

Personnel from Health Risk Management Portfolio attended the joint Veterans Affairs/Department of Defense Airborne Hazards Symposium on Dec. 8 in Washington, D.C. The symposium provided an update on VA and DOD collaborations related to health effects of airborne hazard exposure during deployment to Iraq and Afghanistan. Elements include exposure assessment, clinical care, surveillance and outreach and research.

Personnel from the Environmental Health Engineering Portfolio, Water Resources Program, visited Fort Bragg, N.C., from Nov. 30 to Dec. 12 to update the installation's Spill Prevention Control and Countermeasure Plan. The SPCCP is a federal and Army mandated planning document that addresses oil and hazardous material storage and the secondary containment measures that are required to prevent spills to surface water.

Cmdr. Kevin McGowan of the Occupational and Environmental Medicine Portfolio, Tri-Service Vision Conservation and Readiness Program, discussed types of protective eye wear for Naval Aviation aircrew at a meeting with the Aircrew Systems Directorate of Naval Air Systems Command at Naval Air Station Patuxent River. McGowan demonstrated items from the Army Authorized Protective Eyewear List and the Air Force Flight Protective Eyewear list and educated the commanding officer of the Aircrew Systems Directorate on the aeromedical aspects of integrating protective eyewear with flight equipment in the flying environment.

The Laboratory Sciences Portfolio hosted Dr. Andrew Li, a research entomologist at the U.S. Department of Agriculture on Dec. 22. Li visited the Molecular Biology Section. He is part of the Federal Partners Tick Integrated Pest Management Working Group and he learned about USAPHC laboratory capabilities and the DOD Human Tick Test Kit Program during his visit.

Public Health Command Region–Pacific held a ribbon-cutting ceremony for an Army Wellness Center in Camp Zama, Japan on Dec. 19. The purpose of the event was to introduce the AWC to Camp Zama's command teams. All Camp Zama command teams were invited. The command teams were invited to utilize the Bod Pod® body composition assessment system.

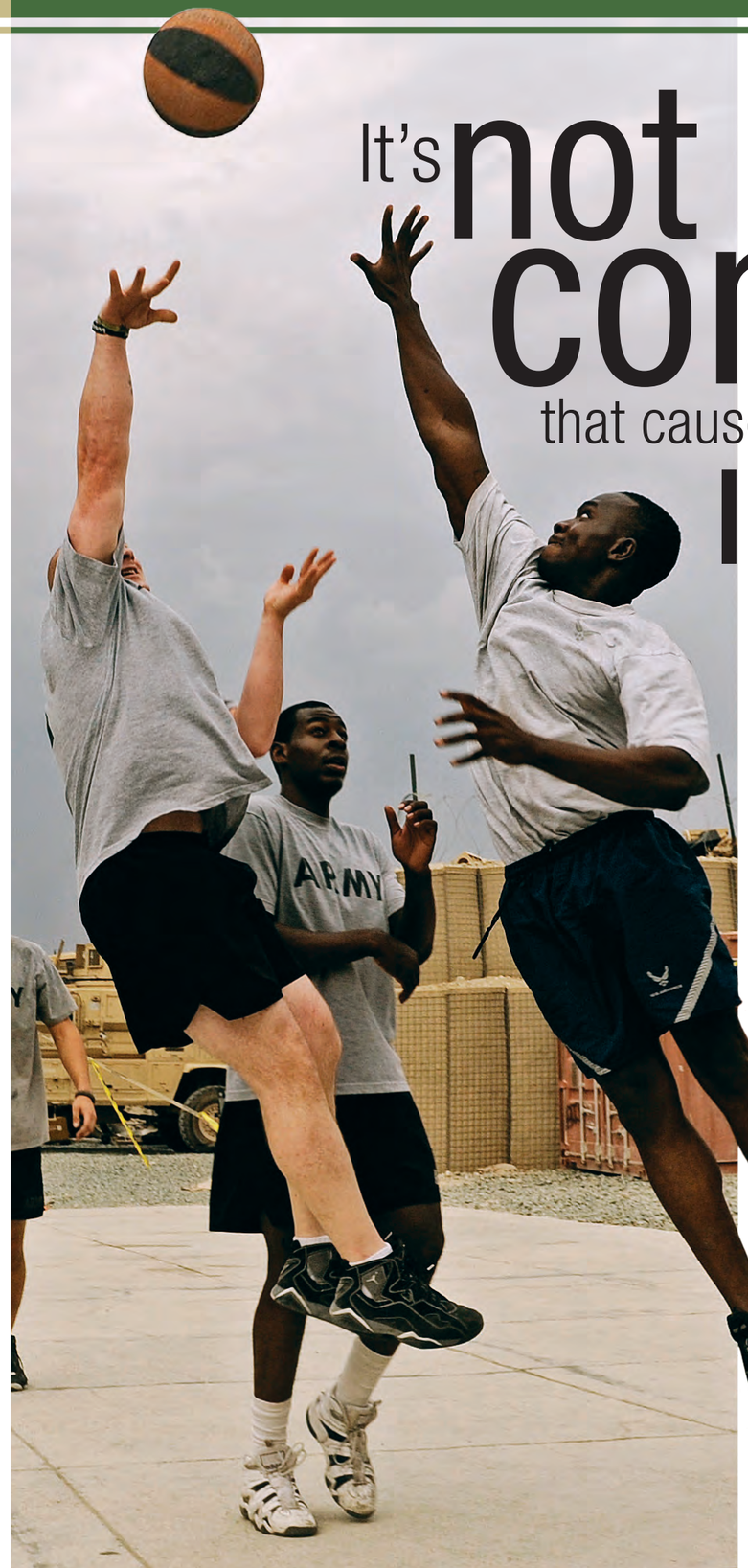
Public Health Command Region-Europe provided a 40-hour hearing technician workshop and completed staff assistance visits at Camp Arifjan, Kuwait in December to certify Soldiers on the ground to complete hearing readiness mission on behalf of military medical treatment facilities. The mission enables units currently stationed in Kuwait to provide hearing tests, medically certified earplug fittings and education to units processing through Kuwait.

Public Health Command Region–North participated in a team-building initiative in December. Participants received a 90-minute experience focused on tangible leadership skills, communication and fostering group/self-confidence.

Capt. Scott Dudis and Capt. Kelly Horgan of Public Health Command Region–West worked with the Joint Base Lewis-McChord Public Affairs Office to raise awareness and to educate both pet owners and members of the public on the dangers of "Salmon Poisoning Disease," a highly fatal disease in dogs caused by bacteria and parasites in raw/undercooked fish. Dudis and Horgan coordinated with the Madigan Army Medical Center to provide accurate assessments of the risk to humans, which is very low, and then published this information in various locations. ▲

USAPHC partners with county and city health officials to promote health

Maj. Gen. Dean G. Sienko, former commander of USAPHC, and Robert M. Pestronk, Executive Director, National Association of County and City Health Officials, signed a three-year memorandum of understanding Dec. 17 to encourage and strengthen collaboration between Army public health and preventive medicine entities and local health departments. The MOU will facilitate information sharing and raise awareness of opportunities for LHDs and on-post public health, health promotion and preventive medicine assets to partner to achieve their shared health promotion, disease, injury and disability prevention, and community resiliency goals, and help meet the Army's goals for Soldier and family readiness. John J. Resta, director of the Army Institute of Public Health, and leaders from USAPHC's Health Promotion and Wellness Portfolio joined Sienko and Pestronk to kick-off this strategic partnership. The MOU marks an important step in reaching Soldiers, their families, retirees, and Department of Army civilians in their "life space" and in the local communities where many live, an essential part of the Army Medicine's transformation from a health care system to a system for health. ▲



It's not combat that causes most Army injuries

VERONIQUE HAUSCHILD
ENVIRONMENTAL SCIENTIST, INJURY PREVENTION PROGRAM

IF YOU ASK SOLDIERS WHAT THE BIGGEST PHYSICAL HEALTH THREAT THEY FACE WHILE IN THE ARMY, ONLY A PORTION ARE AWARE THAT IT HAS NOTHING TO DO WITH WAR-FIGHTING.

In fact, the primary health threat to troops for more than two decades has been common muscle, joint, tendon/ligament and bone injuries like knee or back pain that are caused by running, sports and exercise-related activities such as basketball and weight-lifting.

These activities are not just a primary cause of injuries in stateside locations, but also in deployed locations.

"Non-battle injuries resulted in more medical air evacuations from Afghanistan and Iraq than battle injuries," explained Keith Hauret, an epidemiologist at the U.S. Army Public Health Command. "The leading causes of these non-battle injuries were physical training and sports."

One health provider responding to a recent USAPHC anonymous survey about injuries noted, "we spend time and money training a Soldier to become 'physically fit'—but because we

don't do this right—we over-train them to the point of injury—so they are given restricted duties or medically discharged before they can ever fight our wars."

These injuries continue to cause temporary or even permanent disability and limit the physical capability of thousands of active duty Service Members each year. The impacts include millions of clinic visits annually, millions of lost or restricted duty days, as well as millions of dollars in medical costs.

Leaders need to be better educated on taking care of Soldiers

The Army places a great deal of emphasis on training Soldiers so they are fit and capable of successfully performing their physically demanding jobs. But physical training can stress the body and cause various muscle, skeletal, tendon or ligament injuries. Soldiers can also get caught up in the competitive nature of sports programs and overdo it, resulting in sprains, strains or more severe injuries.

"While participating in physical activities such as running or sports puts you at risk for an injury, the risk of injury should certainly not be interpreted as an excuse to not exercise," said Dr. Bruce Jones, injury prevention program manager at the USAPHC. "Instead, high or increasing injury rates should be a wake-up call to leaders, indicating a need to adjust the physical training program to prevent over-training. This will reduce injuries and ultimately enhance fitness and physical performance."

Army medical experts say training should be conducted in a way that avoids preventable injuries.

"Fit, healthy and uninjured Soldiers are what make an exceptional Army," said Maj. Tanja Roy, an epidemiologist at the USAPHC. "Unit leaders should follow proper physical training guidance and be careful to avoid over-training Soldiers with too much running or improperly instructed exercises."

It's not just the lack of leadership awareness that prevents the Army from avoiding first time injuries. To some health care providers it is sadly ironic that remedial PT programs often force less fit individuals to work out twice a day—which ultimately can result in injury making it more difficult to meet the standards.

The primary health threat to troops for more than two decades has been common muscle, joint, tendon/ligament and bone injuries like knee or back pain that are caused by running, sports and exercise-related activities. (DOD photo)

In the USAPHC anonymous survey, one Army medical provider noted, "I am currently seeing a patient for an ankle fracture. He is in a cast and on crutches, yet was forced to walk for his PT."

Injury prevention experts say the lack of proper procedures increases risk of re-injuries and costly chronic conditions especially as these Soldiers age. They report that some Soldiers are forced to run every day and are plagued with lower back pain and knee pain.

So what can a Soldier do to prevent injuries?

Simply put: train smarter. There is scientifically supported guidance and doctrine that describes injury prevention to be a priority in the Army.

All Soldiers, but especially leaders, should be aware of behaviors or conditions that put individuals at increased risk of exercise-related injuries as well as training principles that can prevent them. Examples include:

- Excessive running is the most common cause of overuse injuries especially in feet, ankles or lower legs. These can be avoided by using a training regimen that incorporates alternative days of low-impact aerobic workouts (e.g. swimming, biking or rowing) and days of strength training. Running distances and durations should be slowly increased over time, and Soldiers should not be forced to run if injured. Cadence runs are not recommended as a fitness method (for esprit de corps only), and group runs should be organized by pace and distance abilities.
- Balanced physical fitness programs should include a mix of aerobic, strength and agility drills and conditioning exercises. Studies that have evaluated the effectiveness of the Army's standardized Physical Readiness Training program described in Army field manual 7-22 have shown that units following the PRT program had significantly lower injury rates than those following a run-centric PT regimen.
- Basketball injuries predominantly involve the foot or ankle. Scientific studies have shown that the use of semi-rigid ankle braces during basketball significantly reduces the risk of recurring ankle injury. Likewise, science has shown that wearing mouth guards during basketball reduces the number of people with broken teeth and other mouth-related injuries.
- Weight-lifting and high-intensity extreme conditioning programs most often involve the shoulders and back. These injuries are often linked to improper form and using too much weight too quickly. These injuries are not likely to be prevented with equipment. While some Soldiers choose to wear back braces during weight-lifting, substantial evaluation of this equipment has not shown them to reduce injury—in fact they may actually increase risk. Though the best physical training routine will include strength training, as with running, the physical training principles of moderation, slow progressive increases and form are important to avoid injuries.
- Military training activities other than exercise, such as parachuting and combatives have also been associated with high rates of certain types of injuries. Though not always used, some equipment has been proven to prevent these injuries. For example, mouth guards are now required during combatives, as they are proven effective at reducing painful and costly teeth and mouth injuries. Ankle braces, though not required, have also been proven as an effective tool to reduce parachuting ankle injuries.

Balancing exercise regimens and gradually building up performance levels

Through its Performance Triad campaign, the Army's medical community continues to encourage incorporating exercise into every Soldier's routine.

"The duration, frequency, level and type of exercise activity, however, should be balanced against known injury risks," said Jones. "Remember that regardless of how fit and how strong you are, an injured back, a sprained ankle, a stress fracture or a torn shoulder ligament can put you out of commission for days, weeks or longer. If not prevented or properly treated, an overuse injury can become a chronic debilitating condition."

By carefully following proper training techniques, avoiding over-training, and adhering to scientifically proven exercise regimens, Soldiers can help to prevent injuries and improve fitness. ▲

Most injuries resulting from weight-lifting and high-intensity extreme conditioning programs involve the shoulders and back. These injuries are often linked to improper form and using too much weight too quickly. (DOD photo)

NOTE: The Army's Institute of Public Health has studied Army injury trends and risk factors for years and published numerous articles and reports on these topics. Technical references can be provided by contacting the program at usarmy.apg.medcom-phc.mbx.injuryprevention@mail.mil. The program is also currently developing educational products to help increase awareness of common physical training related injuries and prevention tactics.

USAPHC responds to a public health threat

JANE GERVASONI
EDITOR

"If it's an important, dynamic issue, Public Health Command is involved," said Maj. Gen. Dean G. Sienko, former commander of the U.S. Army Public Health Command.

When it came to the most recent public health threat, Ebola, the involvement of the USAPHC was of major importance to the Army and the Department of Defense.

"The Disease Epidemiology Program tracks diseases affecting Soldiers around the world," explained Capt. Robert Cohen, a physician and epidemiologist at USAPHC. "We track information on diseases and conditions of medical importance to the Army population including environmental and occupational hazards so that we can respond as rapidly as possible."

According to Cohen, even before Ebola found its way to the national news, epidemiologists in the USAPHC were aware of its emergence.

When the Department of Defense was tasked to support Operation United Assistance, the USAPHC had already begun supporting preparedness and response to the Ebola outbreak. Collaboration across the command brought together experts in all aspects of public health.

"It wasn't just Ebola that constituted a problem," explained Steven Starbuck, an environmental engineer with the Deployment Environmental Surveillance Program. "We also had to provide guidance for environmental assessments of deployment locations. So we needed to assess the soil, water and air to avoid any health concerns outside of Ebola."

Starbuck added that the DESP also reviewed possible industrial hazards that might impact deployed military personnel, providing training to ensure that units collecting samples were protected from both environmental hazards and Ebola.

In addition to other environmental concerns, USAPHC entomologists researched the insects and reptiles that might affect Soldiers deployed to fight Ebola. Two new products were created to support these efforts:

a poster focusing on the venomous snakes of West Africa, and Entomological and Zoonotic Operational Risk Assessments for the Ebola-affected countries in the region. The EZORAs were joint products combining input by both USAPHC entomologists and veterinarians. Deployed preventive medicine personnel were also provided with a comprehensive vector surveillance package including digital training and education materials addressing vector-borne diseases, and detailed guidance on personal protective measures in the affected region.

"Soldiers in Liberia and other affected countries need to protect themselves from important vector-borne diseases that are present, including malaria, dengue and yellow fever using the DOD Insect Repellent System, which includes the combined use of approved skin repellents, properly worn permethrin-treated uniforms and the use of permethrin-treated bed nets," said Kevin Harkins, USAPHC entomologist.

While some addressed environmental concerns, others in the USAPHC were developing briefings and training packages on topics from rabies and the possible use of Military Working Dogs to hazardous waste disposal and industrial hygiene.

"Several military installations were named as possible redeployment sites for Soldiers returning from Africa," said Linda Baetz, Hazardous and Medical Waste Program manager.

"We sent a team on site assistance visits to provide training on medical and infectious waste disposal, setting up isolation areas within hospitals, and ensuring

leaders had risk communication training to communicate to their personnel."

Special personal protective equipment training was also provided to personnel preparing to deploy who might have exposure to Ebola.

"Soldiers needed to understand proper methods of donning and doffing protective gear," explained Lt. Col. Christopher Gehrels, industrial hygienist. "They also needed to understand what types of face masks could be used for protection as well as how often to change filters on respiratory protection."

In addition to the environmental and occupational health risks of combating Ebola and deploying to West Africa, the USAPHC developed communication materials for Soldiers, Department of the Army civilians and family members to help them understand the disease and the Army's role in the response.

"Our risk communications experts researched information from the World Health Organization, the U.S. Centers for Disease Control and Prevention and other public health organizations," said Sherri Hutchens, Environmental Health Risk Assessment Program manager.

"The USAPHC health risk communication specialists developed site specific risk communication plans for William Beaumont Army Medical Center and Womack Army Medical Center, and a generic risk communication plan for all the Army medical facilities at controlled monitoring sites," Hutchens continued. "The risk communication specialists worked with the USAPHC epidemiologists to develop frequently asked questions for Soldiers deploying to West Africa, family members, Soldiers in the controlled monitoring sites, laboratory personnel and veterinary personnel."

Additional information was also compiled by Health Information Operations Program personnel.

"Our health information experts developed fact sheets and information papers," said Kevin Delaney, USAPHC director of communications. "Using the technical knowledge from our physicians and epidemiologists, our visual information team coordinated to packaged information for our different audiences."

When Soldiers or medical treatment facilities had questions, USAPHC technical experts provided a rapid response.

"Everything from brochures and fact sheets to Ebola videos for Soldiers in both English and Spanish have been produced," Delaney said. "This information along with other public health posters, tip cards, food safety information and even rabies posters are being made available for the Soldiers."

Lt. Col. Craig Gehrels, industrial hygienist, shows Maj. Gen. Dean G. Sienko, former commander of the U.S. Army Public Health Command, different types of masks and respiratory protection that could be used by Soldiers.

Sharing information with public health partners was also an important part of the USAPHC response.

"The Johns Hopkins Bloomberg School of Public Health in Baltimore conducted a practice Ebola exercise which we were invited to view," explained Col. Steven Cersovsky, USAPHC Epidemiology and Disease Surveillance Portfolio director. "We were able to share information and suggestions on responding to an outbreak locally."

In addition, the USAPHC was invited to speak to local military and business personnel about Ebola.

Cohen described how Ebola was different from other viruses and provided an historical background about the virus.

"The U.S. Army Public Health Command is a unique organization within the Department of Defense," Cohen explained. "Our public health experts are well-equipped to track public health threats like Ebola and provide recommendations to protect our populations. Much of what we do in supporting Soldiers also can be used to support civilian responses to such threats."

During a public health crisis, it is not just a single disease or event that can affect a population, it is a complex series of events that can impact a community.

"We can't just look at Ebola or any public health threat in a vacuum," said Cohen. "We have to look at the environment, people and animals that may affect the situation.

"This is a part of a one health initiative that monitors and controls public health threats," he said. "It brings together all aspects of an event to be able to respond in a comprehensive approach." ▲

Fort Hood families foster future K9 heroes

PATRICIA DEAL
CARL R. DARNALL ARMY MEDICAL CENTER PUBLIC AFFAIRS

FORT HOOD, Texas—They arrived at Fort Hood a little nervous, a bit curious and a lot anxious to start their extended stay at the Great Place with their new families.

Seven Belgian Malinois and Dutch shepherd puppies from the latest litter of the Department of Defense's Military Working Dog Breeding Program at Lackland Air Force Base, Texas, met their foster families Dec. 12 during orientation at the Fort Hood Military Working Dog Kennel.

The breeding program, administered by the 341st Training Squadron, provides working dogs to every service branch and is among the largest military breeding programs in the world. The squadron's Military Working Dog Training Program teaches the dogs how to patrol and detect drugs and explosives for specialized missions both stateside and overseas.

Not every puppy born in the program makes it all the way through. From birth on, the dog is evaluated for characteristics that would indicate its potential to be a successful military working dog. At about six weeks of age, puppies showing potential are then placed in a foster home, where they stay for about six months.

"Fostering is an important part of the military working dog's life. The dogs are exposed to a variety of environments. The families take the dogs everywhere--to stores, to school, to work. They are socialized with other people and other animals. They are exposed to different sounds and situations," said Renae Johnson, volunteer coordinator at Fort Hood. Johnson, who retired from the MWD Training Center, helped find families in this area to foster the puppies.

She is fostering Flint II, offspring of one of the past fosters she's had. All DOD military working dogs are given names with double-initials.

Normally the foster program has limited its families to those living within a two-hour drive from Lackland Air Force Base to ensure the puppies can be monitored by the 341st and receive their care by DOD veterinarians there.

The Fort Hood Veterinary Center can provide the emergency and routine medical care to the foster puppies so it made sense to expand the foster care program to this area.

"We're excited to add the DOD working dogs program's fosters to our mission. We could end up seeing a foster puppy again if it graduates and then gets assigned to Fort Hood. It's fulfilling to know that we've helped care for a puppy that comes back as an important part of our team of working dogs," said Capt. Dawn Hull, branch chief at the Fort Hood Veterinary Center. The center's mission is to provide food defense and safety for the installation and medical care for Fort Hood's military working dogs and horses. The staff also provides veterinary services to the pets of authorized military beneficiaries.

Being able to expand the foster program outside of the San Antonio area helps expand the program's capabilities yet keeps the costs of the program manageable, according to Tracy Cann, breeding program foster consultant for the DOD MWD Center.

"While we have many qualified foster homes, our puppy production is going up so it's always a good idea to recruit more foster families. We have a litter going out right after New Year's and then another one in mid-February. There will certainly be more opportunities coming up for Fort Hood families to foster," Cann said.

There are certain requirements to become a foster family for the DOD MWD, Cann added. Families should have a home with a yard. Preferably, families should not have children younger than four years old. Families have to have time and patience to raise a young puppy from six weeks of age to seven months and have the desire and interest to learn how to raise a future military working dog.

"It's not so much about obedience," Cann explained to the new fosters, "as it is about expanding the puppies' horizons. It's all about exposing them to noises, new places, people, animals. It's about letting them be sociable, not overly aggressive, and eager to play with toys and balls."

Then families must be able to part with the puppy after of it's been a part of your family for six months.

That's not always easy to do.

As Ggladys squirmed with excitement in her lap, Jessica Blanchard thought about having to give her up at the end of the foster period.

"We'll just foster another one then," she said, laughing. "I'm just really excited to do this. I love dogs. And I know how important working dogs are to the Army."

Her husband, Sgt. 1st Class Randy Blanchard, is a kennel master with the 226th Military Working Dog Detachment here. They already have a mutt and a springer spaniel, a retired military working dog they recently adopted. This is the couple's first time fostering a puppy. ▲

(ABOVE) Jessica Blanchard cuddles Ggladys, her new foster puppy from the latest litter of the Department of Defense's Military Working Dog Breeding Program which was recently delivered to select Fort Hood families to take care of for the next six months. (U.S. Army photos by Patricia Deal, CRDAMC Public Affairs)

(PREVIOUS PAGE) Capt. Tinie Chung, veterinarian, and Sgt. Janina Davila, veterinary technician, from the Fort Hood Veterinary Center give puppy Ggwendolyn a physical exam before the foster puppy from the latest litter of the Department of Defense's Military Working Dog Breeding Program is handed over to her new foster family.

"We have a litter going out right after New Year's and then another one in mid-February. There will certainly be more opportunities coming up for Fort Hood families to foster."

—Tracy Cann
breeding program foster consultant

Families interested in becoming a foster family for a DOD MWD Breeding program puppy can find more information here: http://www.37trw.af.mil/units/37trainninggroup/341sttrainingsquadron/index.asp.

ARMY PUBLIC HEALTH RESPONDS TO OUTBREAK

MAJ. STEPHANIE FONSECA
VETERINARY SERVICES PORTFOLIO

In a classic display of "One Health" initiative, the U.S. Army Public Health Command Public Health Command Region–Pacific Veterinary Services, Entomology and Laboratory Services collaborated with U.S. Navy and Marine Corps, and the Air Force to respond to an outbreak of leptospirosis in Okinawa, Japan. The outbreak affected more than 80 U.S. Marines and a military working dog.

Electron micrograph of Leptospira (enhanced color)

ONE HEALTH IS THE CONCEPT THAT ANIMALS, PEOPLE AND THE ENVIRONMENT ARE INTER-RELATED AND THAT THE HEALTH OF ONE IMPACTS THE HEALTH OF THE OTHERS—in the case of a disease outbreak investigation, this involves incorporation of information from each of the three domains to solve the problem at hand. This holistic approach of One Health brings together information and clues from the animal population and the environment to understand, begin treatment, help avoid exposure and ultimately stop an outbreak.

"Leptospirosis is a zoonotic disease, meaning both humans and animals are vulnerable," explained Lt. Col. John Westhoff, a physician and the director of technical services at PHCR–Pacific headquarters in Camp Zama, Japan. "The bacterium is found all over the world in water and soil contaminated by the urine of infected animals, especially rodents."

Leptospirosis is prevalent in warm, moist climates like Okinawa, where seasonal outbreaks are not uncommon.

On Sept. 7 a Marine from the III Marine Expeditionary Force was admitted to Naval Hospital Okinawa with symptoms of fever, chills, body aches and lower back pain. The next day, 31 more Marines reported to sick call with similar symptoms, prompting a call to Lt. Cmdr. Joy Dierks, Deputy III MEF surgeon and preventive medicine officer.

"We suspected leptospirosis because the Marines had just returned from the Jungle Warfare Training Center, and the incubation period and symptoms were consistent with leptospirosis," Dierks said.

A similar leptospirosis outbreak associated with water obstacles at the JWTC at Camp Gonsalves, Okinawa, sickened Marines back in 1987. Leptospirosis is also endemic in Okinawa so this diagnosis was a logical conclusion.

"Given the potential severity of leptospirosis, when it's strongly suspected, you are obligated to initiate treatment without waiting two weeks for laboratory confirmation," Westhoff said.

Waiting could have had severe consequences in this instance.

On that same day, a very sick MWD was brought to the Kadena Air Base Veterinary Treatment Facility. Only days earlier, the MWD was found to be completely healthy during a routine veterinary exam.

"We suspected leptospirosis based on physical exam findings, clinical signs and history of training at JWTC," reported Capt. Andrew Armstrong, USAPHC veterinarian at Kadena VTF. Bloodwork showed the MWD was in both liver and kidney failure, also strongly suggestive of leptospirosis infection. Despite aggressive efforts to save the animal he was humanely euthanized, according to Armstrong.

"I called the III MEF MWD kennel chain of command to explain what happened, the suspected diagnosis, and to discuss ways to mitigate this risk in the future and was informed of the illnesses in the Marines who had been training at the JWTC at the same time," continued Armstrong. "At that point, I was put in contact with Lt. Cmdr. Dierks."

For Dierks, being made aware of the affected MWD was a critical piece of the puzzle.

"All the Marines who worked cleaning the kennels were treated presumptively because they all were likely exposed," she said.

Leptospirosis is transmitted through infected urine. The urine can be easily aerosolized in a kennel situation.

Tech. Sgt. Donny Aspiras gathers a sample of water from the "pit and pond" obstacle Sept. 15. Health officials are investigating a reported spike in presumed leptospirosis cases among active duty personnel after exposure to stagnant bodies of water which are part of the Jungle Warfare Training Center's obstacle course. Aspiras is a biological and environmental engineer technician with Detachment 3, U.S. Air Force School of Aerospace Medicine. (Photos by Sgt. Jose O. Nava)

PHCR–P veterinary services personnel continued to work closely with Navy preventive medicine doctors to investigate the outbreak.

"The vets here on Okinawa worked with us side-by-side on this outbreak investigation since day one," said Dierks. "The collaboration has been amazing."

Leptospirosis was eventually identified in the affected Marines and was determined to be the most likely cause of the outbreak. The pathogen was not isolated from the MWD, likely due to the acute nature of the illness, but the dog's clinical signs were also consistent with leptospirosis.

The knowledge that both humans and animals exposed to the JWTC were affected focused further investigation efforts. A detachment from the Air Force School of Aerospace Medicine, became involved, providing entomology and preventive medicine support. They collected both water samples and urine samples from rodents captured in the vicinity of the suspected sites at JWTC to test it for the bacteria.

"Additional water testing in November appears to have revealed two novel serovars of leptospirosis," Dierks said. "The public health team at Camp Zama is continuing to investigate and better characterize the risk."

"The key to success was the integrated public health support that leveraged all assets and specialties within the region," said Col. Timothy Bosetti, PHCR–P commander. "The case in Okinawa was an excellent example of integrating veterinary, laboratory, epidemiology, medical services and risk communication within the region. It also exemplified synchronized public health support for the Pacific Command area of responsibility through collaboration and coordination with Navy and Air Force medical and public health assets."

In addition to the inter-service cooperation and collaboration, USAPHC assets, including laboratory support at Camp Zama, Japan, responded by analyzing additional environmental water samples collected from the JWTC.

As a result, the "pit and pond" obstacle was closed to prevent further exposure while further investigations were conducted.

"The investigation of the leptospirosis outbreak in Okinawa was a perfect example of One Health at work," said Westhoff. ▲

Lt. Cmdr. Joy Dierks watches as Tech. Sgt. Donny Aspiras and Staff Sgt. Marvin Ablao discuss how to gather water samples from the "culvert" obstacle Sept. 15. Health officials are investigating a reported spike in presumed leptospirosis cases among the active duty personnel after exposure to stagnant bodies of water which are part of the Jungle Warfare Training Center's obstacle course. Dierks is the preventative medicine officer with III Marine Expeditionary Force. Aspiras and Ablao are biological and environmental engineer technicians with Detachment 3, U.S. Air Force School of Aerospace Medicine.

TAMC human-animal bond program hosts Japanese veterinarians, technicians

PUBLIC HEALTH COMMAND DISTRICT—CENTRAL PACIFIC

On Nov. 6, Maj. Salvador Nassri, deputy commander of Public Health Command District–Central Pacific, briefed a group of Japanese veterinarians and veterinary technicians on the Tripler Army Medical Center Human-Animal Bond Program.

The HAB is a dynamic relationship between people and animals where each will cause an influence on the physiological, as well as psychological state of the other. Studies show that people in contact with animals experience a decrease in blood pressure, reduction in anxiety, as well as a general feeling of well-being.

"Piko" a German Shepherd Human-Animal Bond dog is introduced to a group of Japanese veterinarians and technicians by his handler during the HAB Program briefings. (Photos Courtesy of Tripler Army Medical Center)

Since 1989, the TAMC HAB Program has brought comfort, laughter and interaction to patients and staff at the hospital. Public Health Command District–Central Pacific plays a key role in the program.

"Our role as Veterinary Corps Officers is to ensure that each animal that is part of the HAB Program is selected and maintained at an appropriate level of physical and behavioral acceptability," Nassri said. "It is a job we take with a lot of pride and dedication, just as we do for our Military Working Dogs. One of our VCOs is currently a member of the HAB Committee and all of our district VCOs are available to conduct yearly assessments on all off the HAB animals, in accordance with Department of Defense guidelines."

Approximately 30 visitors from Japan were welcomed by TAMC Deputy Commander for Administration Lt. Col. Hugh McLean. They were then given an overview of the TAMC HAB Program by Nassri. Afterwards, the group divided into smaller groups along with nine dogs and their handlers, visiting both in and outpatient facilities throughout TAMC, and having an opportunity to see the HAB dogs in action.

"These visits, also called animal-assisted activities, help people by providing a change from the daily routine and giving people with a common interest a topic for conversation," stated Barbara Gilbert, infection control nurse and TAMC HAB Program board chair.

"The handlers and their animals bring joy to our patients, visitors and staff; they bring a welcome break from sickness, stress and anxiety," Gilbert said. "Patients, visitors and staff are glad to see the animals, and the animals are glad to see them. The handlers are the unsung heroes in all this. They recognize the importance of the animals' work and are absolutely okay with being in the background, supporting the "work" of their animals."

The Japanese group visits TAMC on a yearly basis in conjunction with the Hawaii Veterinary Medical Association Conference. They take notes and gather ideas that will enable them to enhance their own similar program, known as the Companion Animals Partnership Program, which is promoted by the Japanese Animal Hospital Association.

"I think the program gives us a common ground," said Gilbert. "Many of us don't speak Japanese; many individuals in the Japanese group don't speak English. However, our common love for animals and our common recognition of what the animals bring to our lives and the lives of those they visit on our wards and in our clinics, surpasses the language and cultural differences."

The 30 HAB handler/animal teams, dedicate an average of 1,600 hours of volunteer time per year, lifting people spiritually, emotionally and socially.

"Our HAB Program has a significant impact on our patients and staff here at TAMC," stated Yolanda Gainwell, Red Cross volunteer and HAB coordinator. "I have seen our animals walk into a high stress situation and a sense of calm comes over staff, and the room just lights up. A lot of our patients are away from their own personal pets so the HAB visit provides them with that missed comfort." ▲

(TOP) Maj. Salvador Nassri briefs a group of Japanese veterinarians and technicians on the TAMC HAB Program.

(MIDDLE) A group of Japanese veterinarians and Maj. Salvador Nassri take a photo opportunity with a HAB Program dog.

(BOTTOM) Japanese veterinarians and technicians pose for a group photo with HAB handlers and their dogs.

Graber wins photo contest

JANE GERVASONI
EDITOR

ACCORDING TO ITS JUDGES, COMPETITION WAS TIGHT IN THE ANNUAL ASSOCIATION OF THE UNITED STATES ARMY MAGAZINE'S 2014 PHOTO CONTEST, but U.S. Army Public Health Command photographer Christina Graber took top honors. Her photo titled ***"Buddy Rush"*** was judged on factors of composition, lighting, clarity and the message behind the image.

Graber says she saw the contest as an opportunity to showcase Soldiers in the field.

"It shows Soldiers striving to do more, to compete with themselves and against fellow Soldiers in a friendly competition," Graber said.

Graber, an Army veteran, says that Soldiers are often subjected to harsh or uncomfortable situations, but she hopes that they can still appreciate the beauty around them.

"I always wanted to be a photographer," she said. "I always wanted to join the Army as well; when I found out I could do both, it was the perfect job for me. Being in the Army has given me an amazing appreciation for what our military members do day in and day out."

After getting out of the Army, Graber has continued to work as an Army photographer at the USAPHC Visual Information Division.

"Photographing our Soldiers here and highlighting what they do, along with the civilian work force is a great blessing and truly enjoyable work," Graber said. "Knowing that work in VID gets sent out worldwide to promote the health of our fighting forces overseas and stateside has a comfort of its own. Any way we can help our troops, is a blessing. I believe in going the extra mile for our troops, because they are already doing that for all of us every day!" ▲