

ONE HEALTH

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U.S. Army Public Health Command

Winter 2013



▶ 'Tobacco Deep-Dive'

PLUS:

- ▶ Active communities promote Soldier health
- ▶ Health promotion officers

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(COVER) Maj. Gen. Jimmie O. Keenan, commander of the U.S. Army Public Health Command, Maj. Gen. Robert Ferrell, Aberdeen Proving Ground commander, and other senior APG officials signed an educational partnership agreement with Harford County, Md., Public Schools Dec. 14 as part of a commitment to support science, technology, engineering and mathematics or STEM outreach programs in local schools. See additional STEM coverage on page 22. (Photo by Christina Graber, Visual Information Division)

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Experts develop strategies for combating tobacco use in the military

CHANEL S. WEAVER
USAPHC PUBLIC AFFAIRS



A team of more than 40 medical and military experts from the Department of Defense, supplemented by subject-matter experts from the Centers for Disease Control and Prevention, the American Lung Association, non-profit and private sector organizations, and educational institutions gathered Dec. 2–5 at Aberdeen Proving Ground, Md., united by their motivation and drive to reduce tobacco use in the military.

Sponsored by the assistant secretary of defense for health affairs, the “Tobacco Deep-Dive” focused on developing programs that support individual and group behavior change and a supporting social environment. Reducing tobacco use is a strategic objective of the Military Health System.

The U.S. Army Public Health Command served as the host for the event, and Maj. Gen. Jimmie O. Keenan, USAPHC commander, offered remarks to inspire the group to succeed.

Participants in the “Tobacco Deep-Dive” prepare to brief senior military medical advisors on their recommendations to reduce tobacco use in the military. Their ideas addressed tobacco cessation and prevention from multiple angles.

“Smoking has a devastating effect on the health of individuals and on military readiness,” said Keenan. “What you are doing here will help to change the culture of the military.”

The process of changing this culture will not be easy. Research indicates that tobacco is a formidable foe in the military. The 2008 DOD Survey of Health-Related Behaviors indicated that nearly 30 percent of active-duty smokers initiated smoking after joining the military, and 40 percent of deployed service members smoked.

“Reforming tobacco policy is something that cannot be accomplished overnight,” said USAPHC Command Sgt. Maj. Gerald C. Ecker. “Troops often look to smoking as a way to relieve stress.”

A mock package of cigarettes was used to stimulate discussion during the "Tobacco Deep-Dive" held Dec. 2-5 at Aberdeen Proving Ground, Md. The 2008 DOD Survey of Health-Related Behaviors indicated that nearly 30 percent of active-duty smokers initiated smoking after joining the military, and 40 percent of deployed service members smoked.



Dr. Jonathan Woodson, assistant secretary of defense for health affairs and the director of the TRI-CARE Management Activity, was one of the key leaders who were briefed on the group's recommendations. In his role, Woodson administers the greater-than \$50 billion budget of the Military Health System and serves as the principal advisor to the secretary of defense for health issues.

Woodson endorsed each idea, encouraged the team to develop the ideas even further, and urged them to begin the path of implementing those ideas.

"We know that tobacco use can be deadly, so we have a moral imperative to save the lives of our service members," said Woodson. "We must do all we can to preserve the health of the force."

After three intense days, the participants appreciated Woodson's endorsement.

"We are excited to have senior leaders on board," said Col. John Oh, chief of health promotion at the Air Force Medical Support Agency. "This endorsement will re-energize our efforts."

The participants also enjoyed the cooperation that occurred throughout the workshop.

"This experience was a phenomenal opportunity to engage like-minded individuals who were all united in their commitment to develop innovative strategies for combating tobacco use in service members," said Maj. Lakisha Flagg, an Army public health nurse at the USAPHC.

Participants are looking forward to implementing the innovative ideas and seeing positive outcomes from the Tobacco Deep-Dive.

"Participation in this deep-dive was so rewarding because it represents all of our true commitment to helping the military become a tobacco-free force," said Paul Fitzpatrick, program manager for the UCANQUIT2 Tobacco Cessation Program. "We are realizing that tobacco use is not about personal choice, but about readiness. We have an opportunity to lead the way to cultural change across America." ▲

Installation, deployable unit health aided by USAPHC

LYN KUKRAL
USAPHC PUBLIC AFFAIRS

Army installations offer numerous programs designed to help Soldiers. To name just a few, there are programs to manage finances, get legal advice, readjust after deployment, or reduce (whether it is weight, alcohol consumption or tobacco use that needs reducing).

Installation commanders increasingly recognize that Soldiers and families often need help to get help. To make help more accessible, commanders are using their Community Health Promotion Councils, or CHPCs, to ensure that installation services are "integrated and synchronized," in the words of Kym Ocasio, program manager for U.S. Army Public Health Command's health promotion officer initiative.

USAPHC is designated by regulation as the Army's subject-matter expert for health promotion. To fulfill that responsibility at installations, USAPHC's health promotion officers facilitate the work of CHPCs. As well, health promotion officers link CHPC members and services to deployable units through Brigade Health Promotion Teams, BHPTs.

Ocasio and the health promotion officers in her program fulfill these dual functions by pulling together mission, medical and garrison health and wellness assets to holistically manage issues like work-related difficulties, marital and family problems, substance abuse and suicide risk.

"Holistically means that all the installation's health and wellness assets work together to make health promotion, risk reduction and suicide prevention services easily available and mutually supportive," she explained.

The "integration" of health and wellness services reduces stovepipes and duplication of effort among installation service providers. In other words, CHPC members each know what the others are doing to address an issue through information-sharing and referral.

"Through the vehicle of the CHPC, service providers pull together to create a healthy environment for the individual or the unit," Ocasio said. "They make sure smooth handoffs occur among members, and that everyone involved knows the goal and is working toward it."

“Through the vehicle of the CHPC, service providers pull together to create a healthy environment for the individual or the unit.”

—Kim Ocasio

Innovations from workshop attendees to help reduce tobacco prevalence in the military included:

- An initiative aimed at going beyond brochures and traditional "push" communications by using holographic, three dimensional, life-size projections that create the effect of a live person to communicate an engaging tobacco-cessation message.
- A stronger warrior initiative that will target and seek to reduce the rate of tobacco use during deployment. The initiative will identify and pair service members who want to quit, or who do not want to use tobacco, and provide tools and support necessary to become, or stay, tobacco-free during deployment.
- An initiative to create a tobacco counter-marketing video competition. This video competition would target and empower military members and members of the community to submit entries, and vote on the most popular video. The winning tobacco-prevention video would be broadcast at military communities across the nation.
- An initiative to motivate and inspire individuals to achieve tobacco-free living through competition and incentives.
- An initiative to create a patient registry to facilitate a more comprehensive follow-up for people who want to quit using tobacco.

Col. Charles Kibben, 13th Sustainment Command (Expeditionary) rear detachment commander, leads the discussion during the 13th ESC's Health Promotion Forum, Jan. 20. Unit-level meetings contribute to the overall Community Health Promotion Council process by making timely assessments and creating or implementing programs that foster resiliency and empower Soldiers and families. (Photos by Sgt. Steven Schneider, 13th ESC Public Affairs)



Wendy Lakso, health promotion officer at Fort Hood, Texas, agrees that CHPC members working collaboratively at her installation have fostered communication and effectiveness among commands and service providers.

"Through the council, leaders at all levels to include service providers have been able to speak candidly about processes, policies and practices that may be beneficial or might need adjustment," she said. "The Fort Hood council has been able to recommend policy changes and streamline processes to be more effective while creating a stronger link between service providers and commanders."

USAPHC health promotion officers like Lakso also ensure that health and wellness are addressed in installation management plans and have specified goals and objectives. This is what Ocasio calls "synchronization."

"Synchronization is having a strategic plan for the Community Health Promotion Council that aligns with the installation plan and is linked to the commander's priorities," she explained.

Currently, there are 10 USAPHC-hired and -trained health promotion officers at Forces Command installations in the continental U.S. as well as seven in Germany.

In addition to their CHPC role, these health promotion officers serve as liaisons for health promotion and risk reduction to Brigade Health Promotion Teams. These teams provide continuity in health promotion and risk reduction when the brigade deploys from its home installation.

"The health promotion officer liaison role helps align brigade needs with garrison and medical service providers and convey the interests of the brigade Soldiers and families to the council," Ocasio explained. "The HPO supports the Brigade Health Promotion Team, which is designed to provide early detection of risk through systematic surveillance and implement timely and targeted responses to brigade needs."

At Fort Hood, commanders like Col. David Hill, 36th Engineer Brigade, appreciate the two-way communication role that health promotion officers fill.

"Our corps health promotion officer ... has advised us on ways to integrate installation- and Army-level resources into our health promotion efforts at the brigade and battalion," Hill said. "[She] is in touch with the unique challenges of my brigade, and I suspect that is true of brigades across Fort Hood. Because of her knowledge and perspective, I feel confident that in her role as advisor to the III Corps commander and as a liaison outside the corps, she is able to articulate our specific challenges to policy-makers and advocate for resources that best fit our needs."

Lakso credits Fort Hood commanders with a sustained commitment to collaboration that has allowed their units to anticipate and address issues before they become major.

"Creating the structure for health promotion at the corps level has made an impact in bringing prevention activities to the forefront ... for leaders across our installation," Lakso said. "[These] activities with the CHPC, brigades and agency leaders ... have initiated a different way of doing business. We've moved from taking care of an individual or population after incidents to a proactive approach to holistic health and wellness. We're identifying potential risky behavior trends and looking at ways to implement programs to address those behaviors before they escalate."

In addition to the roles of informing, advocating and facilitating collaboration, HPOs like Lakso focus command attention on Soldier health and resilience across commands.

"The most important benefit of Fort Hood's HPO from my perspective is how well she helps me to see and understand the health and discipline of my brigade through the visualization tools she develops that indicate wellness trends relative to other units at the installation," according to Col. Mark Simerly, commander, 4th Sustainment Brigade, 13th Expeditionary Support Command.

As well, Simerly said, health promotion officers pull in the many resources available on an installation to provide a more complete picture of individual commands.

"By bringing together the diverse service providers into a single forum, the HPO creates a robust network of feedback and sensors that enables commanders to make informed assessments about units and individuals, and better decisions regarding command climate," he said.

"The bottom line is, we receive a great return on investment from the HPO concept here at Fort Hood." ▲



Donnie Robinson Sr., 13th Sustainment Command (Expeditionary) safety advisor, tells 13th ESC leaders about the 14 major safety concerns and shows slides on where different units stand compared to Forces Command.

NEWS AND NOTES

FROM AROUND THE COMMAND

Steve Gerras, professor of Behavioral Sciences, Department of Command, Leadership, and Management at the Army War College, Carlisle, Pa., presented “Critical Thinking in the 21st Century” Dec. 12 for approximately 75 Army Institute of Public Health employees. Gerras, a retired Army colonel, earned his doctorate in industrial and organizational psychology from Penn State University. His presentation covered key leader attributes and good judgment as well as critical thinking. Gerras spent most of the presentation discussing his critical thinking model, which is used in the Strategic Thinking class that is part of the core curriculum at the Army War College. The underpinnings of this model include understanding how assumptions, points of view and inferences can impact how individuals clarify concerns and evaluate information in order to make good decisions.

Public Health Command Region–Europe’s Deployment Environmental Surveillance Program supported several joint exercises during 2012, providing public health-related mitigating strategies to protect the health of U.S. forces. The program conducted technical assistance training workshops to prepare preventive medicine Soldiers within U.S. Army Europe for upcoming deployments and trained non-U.S. veterinary counterparts in water sample collection. PHCR–Europe military personnel conducted soil sampling, dining facility inspections, and inspection of wastewater holding tanks in varied locations including Latvia, Estonia, Turkey, Bulgaria and Romania.

PHCR–Europe Best Warriors are Sgt. Brian Patrick, an animal care specialist at Public Health Command District–SE, Sigonella Branch, and Sgt. David Juarez, an animal care specialist at PHCD–NE, Spangdahlem Branch. These winners will participate in the USAPHC competition.

PHCR–Pacific participated in a tri-service public health working group. The goal was to discuss public health issues across the Pacific Command area of operations, establish communication and conduct collaboration with all services. This effort will eventually improve and enhance public health services provided to PACOM.

Members of the PHCR–Pacific Special MEDCOM Response Capability–Public Health team participated in a fall Shizuoka Prefecture, Japan, Government Disaster Relief Drill. The drill scenario centered on a massive earthquake devastating Shizuoka Prefecture and its various overland routes. It incorporated a nuclear power plant variable similar to Fukushima; however, the Hamaoka nuclear power plant’s current offline status minimizes the potential for meltdown and allowed agencies to monitor radiation and abate a nuclear crisis.

An approximately nine-minute video detailing and promoting the Pacific Regional Medical Command/Tripler Army Medical Center Human-Animal Bond Program was created and screened at TAMC in December. The video was created by a Hawaii-based resiliency organization in conjunction with PRMC/TAMC, and includes footage of Capt. Emily Corbin, Fort Shafter Branch, PHCD–Central Pacific, detailing the USAPHC veterinary role in the program. Web link to the video product is <http://youtu.be/JozyqyudDU>.

PHCR–North personnel had many significant accomplishments during 2012. The Laboratory Science Division achieved ISO 17025-based laboratory accreditation granted by the American Association for Laboratory Accreditation. The division analyzed more than 4,000 arthropod samples and detected West Nile Virus in 47 mosquito pools. Through this detection, PHCR–North determined that the highest minimum infection rate occurred in early August. As well, the Environmental Health Engineering Division staff completed eight major drinking water projects that resulted in increased security and assisted in mitigating public

health risk factors for major Army installations across the 20-state Northeast region. During this period veterinary science personnel inspected approximately 900 military food establishments and completed over 800 food protection audits at commercial food manufacturing facilities. Veterinary personnel also supported nearly 1,500 military working dogs and performed over 100,000 outpatient visits for government and privately owned animals.

Global Emerging Infections Surveillance and Response System staff attended the Institute of Medicine’s 15th Anniversary Symposium on Emerging Infections, Microbial Threats to Health, and the Microbiome in Washington, D.C., in December. The symposium covered the causes and response to emerging infections over the last 20 years, tools and approaches for infectious disease surveillance and detection, and how views of the microbial world have changed.

The Senate passed the 2013 Defense Authorization Act, including verbiage that would allow the secretary of defense to establish a means to provide care to retired military working dogs. The act prohibits the use of federal funds to do this and requires DOD to establish standards of care. USAPHC’s role, if any, has not been determined.

Officers and non-commissioned officers assigned to Public Health Command District–Fort Belvoir provided veterinary support to the 2013 presidential inauguration and the U.S. Secret Service. Maj. Robert Paul, veterinary preventive medicine officer, served as officer-in-charge. The team also included Capt. Emily Bingham, field veterinary services officer, Staff Sgt. Monique Barnes and Sgt. Margaret Wells, animal care specialists. They were assigned to provide care and treatment for the 115 working dogs in the Federal Working Dogs team at the inauguration. In addition, Maj. Lisa Barden, a veterinarian, and Sgt. Elisha Snider, an animal care specialist, both from PHCR–North, provided assistance to the Old Guard caisson unit during the inaugural parade.

Two food inspection sergeants from PHCD–Joint Base Lewis–McChord provided food safety and quality assurance support to the National Science Foundation’s U.S. Antarctica Program. Through the NSF’s operations unit, the Office of Polar Programs, only the safest and highest quality subsistence is delivered to McMurdo and South Pole Station, two separate locations in the Arctic region where teams of NSF scientists and support staff are positioned throughout the year. Inspectors provided food protection oversight and training to contract civilian personnel. The sergeants worked long hours in temperatures well below 41 degrees Fahrenheit. Over the course of a month, more than 50 tons of red meats, poultry, fresh fruits and vegetables, and miscellaneous perishable and semi-perishable food items were inspected, effectively protecting the financial interest of the government and—most important—providing only the safest foods for the NSF personnel.

PHCR–West Master Sgt. Gustavo Gurrola assumed responsibilities from Sgt. Maj. Terry Bradley on Jan. 9, as Col. Robin King, PHCR–West commander, officiated. As the highest-ranking enlisted leader in the command, Gurrola will act as the commander’s principal enlisted advisor. He will be responsible for informing and educating new enlisted personnel as well as providing leader development programs for non-commissioned officers.

A matrixed team from within the USAPHC, including members from Occupational Health Sciences, Occupational and Environmental Medicine, Health Risk Management and Toxicology portfolios, discussed the need for access and archival of toxicology products to include toxicity clearances, technical reports, peer-reviewed manuscripts, protocols, and other memoranda to assist in data calls for various purposes. Currently, products exist in a variety of states from single hard copy to searchable electronic versions. A phased approach is planned that involves documenting procedures and segregating products onto local servers.

Public Health Command District–Fort Belvoir began emergency preparations prior to Hurricane Sandy’s arrival in late October by planning to provide medical care for 175 military working dogs. More than 520 food establishments across 70 installations required coordination to ensure the wholesomeness and safety of food in the aftermath of the storm. Seventy food inspectors checked food potentially unfit for consumption. More than \$42,000 of food was removed from sale to the public.

USAPHC ergonomic experts are working with a Uniformed Services University of the Health Sciences occupational ergonomics student studying safe-patient handling in the U.S. Indian Health Services. The USAPHC Ergonomic Program survey tool developed to support military medical facilities will be used to assess the current state of patient handling in the IHS and make appropriate recommendation for implementing interventions. The results of this collaboration may allow for some comparison between the status of patient handling in the Army and the IHS facilities.

The USAPHC is collaborating with the Army surgeon general’s office to coordinate planning for implementation of the Performance Triad (activity, nutrition and sleep) pilot programs in three battalions. Efforts to determine the most effective methods of changing behaviors in the areas of the triad are a primary focus of these pilot programs. TSG believes working with Soldiers and their families to encourage them to make cultural changes is vital to ensuring the success of this implementation.

An AIPH Water Supply Management Program team conducted an assistance visit to PHCR–South Dec. 10–14 to meet with PHCR–South environmental health engineering personnel responsible for medical oversight of installation drinking water and environmental health sanitation efforts. Discussions covered standardization of technical services, core competencies, reporting, collaboration, and effective oversight of surveillance, surveys, quality assurance/quality control, and water system security.

A Military Combat Eye Protection survey was approved by USAPHC’s Public Health Review Board. This survey is a step toward gathering critical information on the current use and effectiveness of MCEP devices. It will assist ultimately to decrease combat eye injuries. Many programs are in-place to survey in-garrison use of Personal Protective Equipment (including industrial safety eyewear); however, there is no current program to survey the use of eye protection in combat. Ocular injuries are one of the most common injuries incurred by active-duty members during wartime missions. Since the emergency triad is made up of life, limb and eyesight, preventing these injuries is important. The proposed survey will give USAPHC’s Tri-Service Vision Conservation Program information to improve use of eye protection devices in the military.

G-1 held civilian retirement seminars for both Civil Service Retirement System (CSRS) and Federal Employees Retirement System (FERS) employees at Aberdeen Proving Ground Dec. 3–6. The seminars answered questions on Social Security, Medicare and retirement planning for those who may retire in the near future as well as for those who are just beginning their civil service careers. A second seminar was held for FERS employees Jan. 9–10. Due to the many requests for these kinds of seminars, G-1 is exploring ways to provide them to employees at the regions. Those who are interested in attending such seminars should contact Karen Lunas (karen.e.lunas.civ@mail.mil) to help G-1 determine the needs of the workforce.

Maj. Gen. Jimmie O. Keenan, USAPHC commander, and six other senior leaders from APG signed the Team APG/Harford County Schools educational outreach partnership agreement Dec. 14. The purpose of the agreement is to encourage and enhance study in the Science, Technology, Engineering and Mathematics disciplines and provide technical experiences for students and teachers interested in pursuing STEM courses. The agreement between Team APG members and the local schools sets up support that can be provided within mission parameters as resources allow. ▲

MIAN AGRAINS T MOUSE

Army entomologist prevents disease

“The deer mouse is the primary culprit in spreading the disease.”

—Jim Harrison
Entomologist



The house mouse with a hairless tail (top) looks very different than the deer mouse, which has a bi-color tail. The deer mouse is the primary vector for hantavirus in the U.S. (Photo by Jim Harrison, PHCR–West)

Jim Harrison, Master Consultant entomologist at U.S. Army Public Health Command Region–West, thinks there is a good way to prevent hantavirus at military installations and during deployment. In a word: clean up.

Since 1994, according to the Centers for Disease Control and Prevention, more than 580 people in the U.S. have contracted hantavirus, and 36 percent of these cases had a fatal outcome. There have also been two active-duty military cases in the U.S., and both were fatal, according to Harrison.

Hantavirus, or more accurately hantavirus pulmonary syndrome, is a human disease involving the lungs. The deer mouse is the primary culprit in spreading the disease, according to experts at the PHCR–West, who confirmed this by performing surveys at 44 military installations, mostly in the western half of the U.S.

Hantavirus is shed in rodent urine and feces. The primary route of infection, inhalation of airborne particles, is almost always associated with indoor environments.

“There currently is no way to test mouse droppings to determine the presence of hantavirus, and environmental sampling will not detect the disease—the disease can only be confirmed from tissues taken from live rodents,” explained Harrison.

“Appropriately disinfect and clean up a site, and you have taken adequate precautions to protect your people,” he continued.

Since 1994, PHCR–West has conducted hantavirus surveys at installations and sites in the Western U.S. In all but five or six of

these locations, one or more hantaviruses have been found, said Harrison.

According to the Centers for Disease Control and Prevention Web site, public health agencies have been conducting hantavirus surveys since 1993 after an initial outbreak in the “Four Corners” area of the Southwestern U.S.

Harrison conducted a recent survey at White Sands Missile Range, N.M., to evaluate the risk of hantavirus on the installation at the request of Mike Ramos, McAfee Army Health Clinic industrial hygiene technician.

“New Mexico records the highest number of cases of human hantavirus in the U.S.” explained Harrison. “Deer mice are the most common rodent species on WSMR.”

Education, prevention and rodent cleanup are the keys to prevention.

Harrison conducted classes on rodent surveillance techniques, personal protection for workers and cleanup personnel, and rodent control.

“If you find a mouse, look at the tail. A deer mouse has a bi-color tail,” explained Harrison. “A house mouse, which does not carry the virus, has a hairless tail.”

“Mice are the symptoms of a problem, but the droppings spread the virus to humans. So if you see deer mice, there is a good possibility that hantavirus may be present,” Harrison continued. “Inhaling disturbed rodent contamination in buildings poses an increased risk of disease if personal protection is not used.”

“Just knowing what to look for is important,” said Ramos. “Education for our people could save time, money and lives, and we wouldn’t have to request surveys as often.”

Installations can obtain assistance with pest management questions by contacting USAPHC at pesticide.hotline@amedd.army.mil.

(Information for this article provided by PHCR–West.) ▲

Surety Medicine safeguards specialized worker health

BRIAN G. SCOTT, M.D.
SURETY MEDICINE PROGRAM MANAGER

Across the Army, in 18 locations on two continents, some 2,500 uniformed, civilian and contract personnel deal directly with or control access to special materials: nuclear, biological or chemical.

At their research, storage, destruction or command-and-control facilities, the Army has, by regulation, established surety programs. The programs safeguard the physical security, safety and reliability of these special materials.

Workers in these programs are clinically monitored to ensure they are reliably able to carry out their duties. The clinics that do this work include U.S. Army Medical Command facilities as well as clinics at contractor-operated sites, universities and private research organizations.

The U.S. Army Public Health Command's Surety Medicine Program provides technical assistance to all of those clinics in their occupational and public health mission of safeguarding the health of surety program workers. The program brings medical emergency response planning expertise to the surrounding communities in support of the Army-Federal Emergency Management Agency Chemical Stockpile Emergency Preparedness Program.

"The Surety Medicine Program, within the Occupational and Environmental Medicine Portfolio, was created in 2010, after USAPHC leadership recognized an opportunity to realize significant cost savings to the Army by standing up a program to carry out what had for more than a dozen years been a contracted effort," explained John Resta, Army Institute of Public Health director.

The program's staff of eight includes civilian occupational medicine physicians, emergency and occupational health nurses, an occupational health physician assistant, and training specialists with knowledge and skills that mirror those at the Army's

surety support clinics. The program performs compliance assistance visits; supports management reviews for seven Army commands, direct reporting units, component commands or agencies; and delivers specialized training to the clinics and health professionals supporting the surety programs.

"We are just a phone call away, if there are urgent concerns about exposures or policy questions," explained Tim Merkel, Surety Medical Program instructor, "and our support is both rapid and cost-effective."

In addition, the program supports policy development at MEDCOM and at headquarters, Department of the Army, and provides provider-to-provider consultations as well as requested tools, facts sheets and other resources to the surety support clinics.

Since 2010, the Surety Medicine Program has conducted many site assessments and reviews, delivered several training courses and a monthly continuing medical education seminar, participated in development of several policy documents, planned several annual community exercises, and performed a number of post-incident clinical consultations. In addition, USAPHC now has formal agreements with two Army Materiel Command organizations for Surety Medicine Program support.

In the future, the program plans additional collaborative work updating and revising the regulatory basis for MEDCOM surety support, major revision of Army technical guidance for surety support clinics, and streamlining the formal continuing medical education offerings for their personnel.

This new mission area for the OEM portfolio will keep the program's staff busy for the foreseeable future, as they assist in protecting these special worker populations from their unique hazards and risks, and assist the Army in safeguarding some of its more unusual materials and missions. ▲



Timothy Merkel, Surety Medicine Program instructor, demonstrates key points of radiological patient assessment during an exercise. The "patient" is a computerized medical-simulation manikin, and the radiation detector pictured has been modified to provide simulated indications of radioactive contamination. (Photo by Steve Vaira, Surety Medicine Program)

USAPHC Web-based courses save money, satisfy demand

CHANEL S. WEAVER
USAPHC PUBLIC AFFAIRS

In an era of decreasing budgets and limited funds for travel, managers have struggled to find ways to ensure they keep a highly-trained and competent workforce.

But experts in the U.S. Army Public Health Command Occupational Health Sciences Portfolio are making it easier for Army workers to maintain credentials through use of an online training system called Blackboard Learn.

The system, employed at various institutions of higher learning across the U.S., is becoming a preferred training tool for many Army industrial hygiene and safety personnel. With this Web technology, subject-matter experts are able to deliver graduate-level training in 15 courses that are focused on core competencies in the Army safety and occupational health career program.

Courses include such topics as noise measurement and assessment, blueprint reading and design review, environmental and indoor air quality, fundamentals of ventilation, and ergonomics, just to name a few.

Each course is based upon competencies defined by the American Board of Industrial Hygiene, and many provide enrollees with continuing education units required to maintain certification in their respective career fields.

Students can view lectures and upload homework and assignments in Blackboard Learn as well as print materials for study and reference.

“Students no longer receive a large binder to carry home and place on a shelf,” said Paula Steven, industrial hygiene training coordinator at the USAPHC. “Blackboard Learn allows us to upload all materials, and attendees simply print what they personally need.”

Steven is responsible for building and maintaining the educational materials posted in Blackboard Learn and enrolling students into courses.

The online training system also provides benefits for the instructors, according to Steven.

“Blackboard Learn keeps track of transcripts, certificates and course survey statistics, making the completion of reports much simpler for the coordinator,” said Steven.

Although the majority of instruction is provided online, some course offerings also include blended learning, which offers a portion of the course in the Web-based environment, while the other aspect of the course includes hands-on training as residency work.

Additionally, the requirements for taking a course are not complex.

“Some of our residency courses have priority seating, but all of our online offerings are available to federal employees who have a ‘dot-mil’ e-mail address, a DCO (Defense Connect Online) account, and a Common Access Card,” said Steven. “If an attendee is taking one of the courses or modules for the first time, there is a simple registration process that takes place in the Army Blackboard Learn to create a profile in the system.”

Enrollment in these courses continues to trend upward.

“Our student population has increased from around 400 or 500 individuals to nearly 1,400 individuals since we started offering courses and modules on the Blackboard Learn,” said Steven.

Although most of the attendees who take the courses are Army industrial hygiene staff members or safety professionals, the students are becoming more diverse according to Steven.

“We have attendees enrolled in our courses from a wide variety of governmental agencies,” said Steven. “We have a population of National Guard safety professionals and Army and National Guard occupational health nurses that regularly attend our offerings. We have even noticed attendees from our sister services, Department of Homeland Security, and Defense Logistics Agency.”

The Blackboard Learn courses also provide a benefit for the Army by reducing the amount of time spent traveling for courses as well as ensuring an efficient training process.

“We used to offer a course that required two weeks of residency for 20 students,” said Steven. “Now with having one week of the course online, we accommodate 80 students for one week of residency and still end up spending less money. We can accommodate many more students at a much lower price without having to sacrifice the hands-on training.”

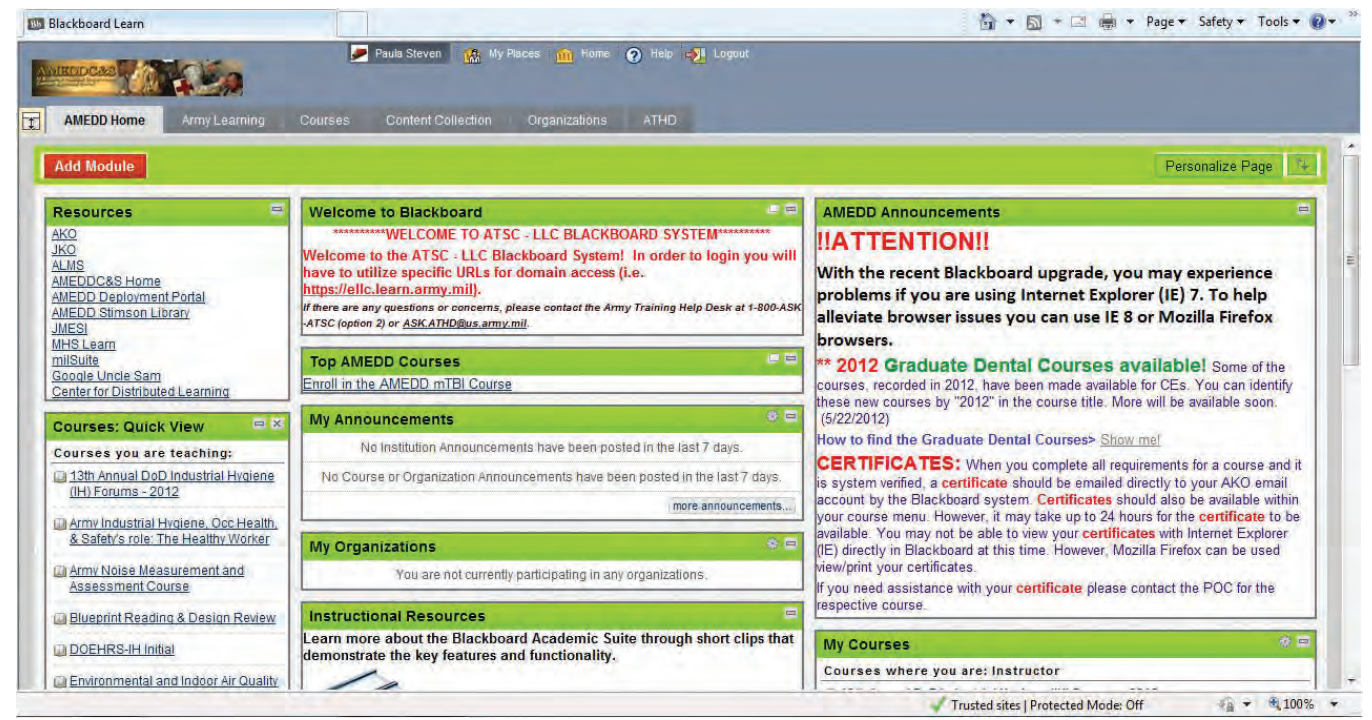
The success of the Blackboard Learn system has prompted USAPHC personnel to offer additional courses.

“Our subject-matter experts are currently working on implementing approximately 48 new online modules focusing on a variety of instruments, ventilation topics, and different industrial work environments,” said Steven.

In the future, the Blackboard Learn system can be expanded to cover courses to support other training programs.

Steven said the online courses demonstrate “out of the box” thinking for Army personnel.

“Having instructors who are willing to step out of their comfort zone and try something new has helped make Blackboard Learn successful,” said Steven. ▲



SOLDIER FITNESS TRACKER

USING TECHNOLOGY TO SUSTAIN GOOD HEALTH

CHANEL S. WEAVER
USAPHC PUBLIC AFFAIRS

Army Wellness Center clients are better able to track their health and wellness with the assistance of a new online tool that is available at AWCs.

The Soldier Fitness Tracker is a Web-based application that collects and stores data for use by clients and AWC staff. Wayne Combs, an AWC project officer with a doctorate in nursing science, said the SFT will empower clients to track and sustain their efforts in meeting their fitness and wellness goals.

Combs, who assists in implementing new AWCs and provides oversight for existing AWCs, said the SFT is very user-friendly.

Before visiting the AWC, a client can access the SFT using a Common Access Card or secure password. The individual then completes a questionnaire that asks about aspects of personal health. Such topics as a person's nutrition, activity, sleep patterns, tobacco use, alcohol use and stress levels are addressed in the questionnaire. After the person completes the survey, a summary of responses and a "wellness" score are provided. Based on a client's responses, AWC staff can tailor services to meet the client's needs and desires. All results from testing and services provided are also stored permanently in SFT.

"The software provides feedback to clients to help them reach and maintain their fitness and wellness goals," said Combs.

Additionally, the SFT allows the individual to see how their results compare to other people similar to them.

"It's a barometer that allows a person to see if their results are below average, average or above average when compared to people of the same age and gender across the United States," said Combs.

"No matter where Soldiers and their families go, the SFT will follow from duty station to duty station," said Combs. "It provides continuity in maintaining fitness and wellness."

Another benefit of the Soldier Fitness Tracker is that it has been designed in collaboration with the Army's Comprehensive Soldier Fitness Program. This program aims to increase the physical and psychological health, resilience and enhanced performance of Soldiers and retirees, their families and Army civilians.

Combs said the SFT provides an additional benefit for the Army because it provides a springboard for education, prevention and referral to services at the AWC and other facilities. He also said the SFT provides a way for AWCs to evaluate their effectiveness.

"In the past, the Army did not have a reliable way of evaluating the impact of services that AWCs provide," said Combs.

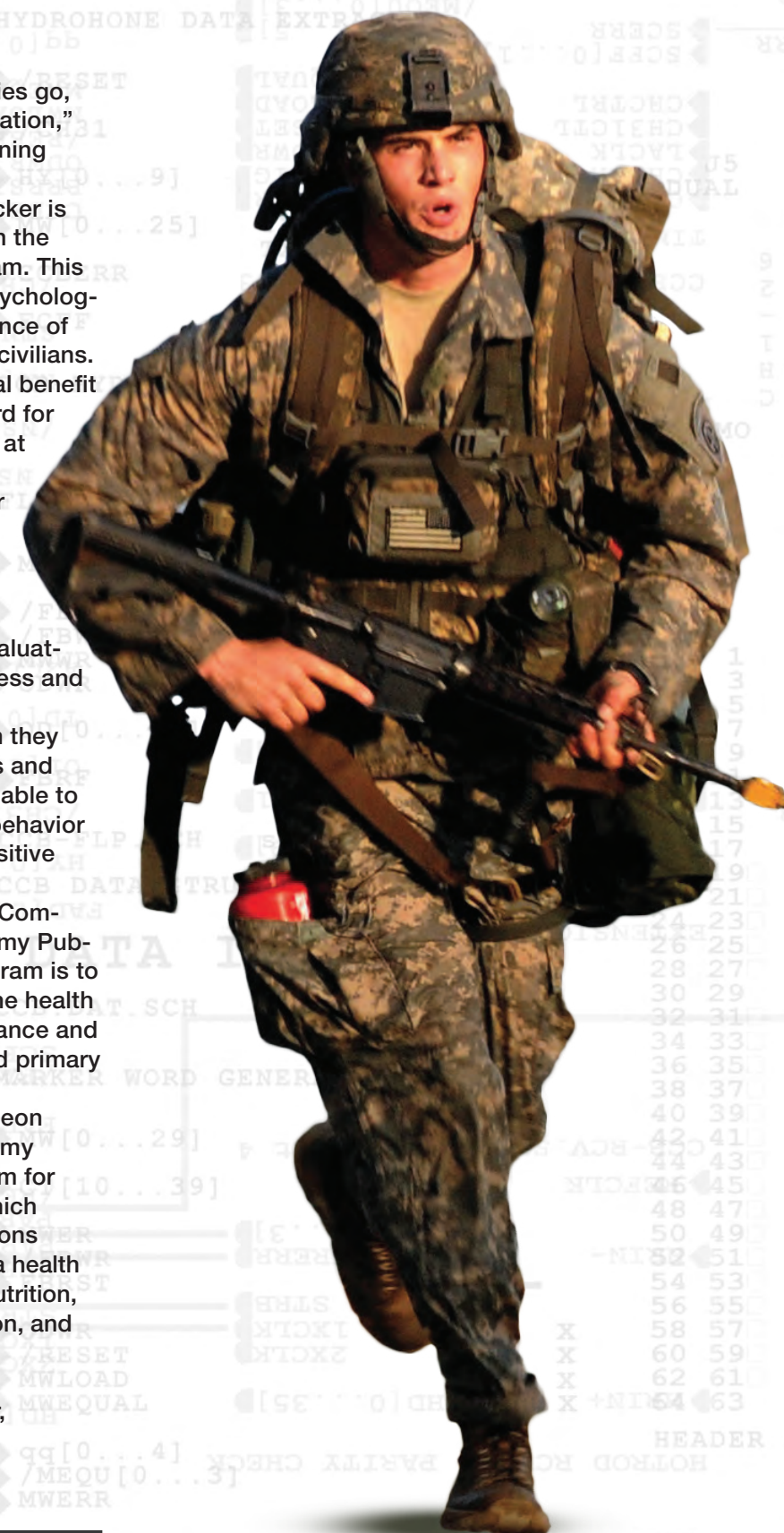
The Soldier Fitness Tracker will help in evaluating whether they make a difference to the fitness and wellness of AWC users.

"We can look at individuals' records when they arrive at the AWC, and then follow their results and behavior over time," said Combs. "We will be able to tell if they have made and sustained healthy behavior changes, and if AWC services are having a positive impact on their fitness and wellness."

The AWC Program is a U.S. Army Medical Command initiative that is managed by the U.S. Army Public Health Command. The purpose of the program is to support Patient-Centered Medical Home as the health education arm for the healthcare team to enhance and sustain healthy lifestyles through standardized primary prevention programs and services.

AWCs are a key element in the Army surgeon general's long-term strategy of refocusing Army medicine from a healthcare system to a system for health by emphasizing primary prevention, which means stopping diseases and chronic conditions before they start. AWC core programs include a health assessment review, physical fitness, healthy nutrition, stress management, general wellness education, and tobacco education. ▲

To access the Soldier Fitness Tracker, visit <https://www.sft.army.mil/>.



ACTIVE COMMUNITIES PROMOTE HEALTHY PEOPLE

JANE GERVASONI
EDITOR

A military installation is a microcosm of the civilian community outside the gates. It is where Soldiers and sometimes even civilian workers and their families live, work, eat, sleep and play. As Army medicine looks at keeping installation populations healthy through the performance triad of physical activity, nutrition and sleep, health promotion experts are looking at how installations influence healthy activities.

Installation and garrison commanders can contribute to the health of people who work and live on their installations. They do this through planning and development of physical environments and selection of services that enhance population health, according to experts at U.S. Army Public Health Command.

Many food establishments are available to those who live and work on an installation. Healthy food options should be easy to access. (Photos by Christina Graber, Visual Information Division)

For example, planning for walking paths, bike lanes and on-post eateries that offer healthy foods all enhance the installation population's opportunities for making healthy choices. As well, Army policies and regulations that govern installation environments must support the goal of sustaining and building good population health.

"Our ability to act healthy and eat healthy is outside of ourselves. It is affected by what is constructed around us, and all of that is controlled by policy, regulation and education," said Joanne Hsu, program evaluator in the USAPHC Public Health Assessment Program. "Many people play a key role in making our environment what it is and modifying it to be a healthier place."

A number of leading organizations in health and nutrition, including the World Health Organization, the International Obesity Task Force, the U.S. National Academies of Science's Institute of Medicine, and the Centers for Disease Control and Prevention, "have identified environmental and policy interventions as the most promising strategies for creating population-wide improvements in eating, physical activity and weight status," according to research in technical publications, she said.

Understanding this vision led to the creation of the CACHE—Creating Active Communities and Healthy Environments—toolkit that will assess the physical environment to see how well it promotes physical activity and nutrition. The CACHE includes modules on both the Military Nutrition Environment Assessment Tool, or m-NEAT, and the Promoting Active Communities tools as well as easy to use implementation materials.

Together these modules in the CACHE provide installation leadership with targeted, actionable information for improving the physical environment.

The m-Neat asks questions about availability, placement and pricing of healthy options in a variety of facilities that prepare and/or sell food.

"The m-NEAT enables DOD communities to measure how well they support and promote a healthy eating environment," said Lt. Col. Sandra Keelin, registered dietitian with the USAPHC Health Promotion and Wellness Portfolio.



"The first step in improving a military community's support of healthy eating is the completion of the m-NEAT assessment. This assessment gathers information about the nutrition environment of a community and assists in the development of a local plan to improve the environment," Keelin explained. "However, this is only a partial solution to problems like obesity and other physical health issues."

The team took this partial solution and built the next piece of the CACHE.

When Lt. Gen. Eric Schoomaker, former Army surgeon general, was briefed on weight-loss efforts in the Army, he asked the USAPHC staff what Army installation environments look like. He wanted to know why he couldn't walk from the medical treatment facility where he worked to his on-post house, and what information was available on promoting a physical environment.

His questions encouraged USAPHC health promotion experts to expand their vision. They began to look for an effective way to make changes in health through changing systems, policy and the environment.

"We took the m-NEAT and added a complementary tool that could assess the physical environment. The tool is called Promoting Active Communities or PAC," said Amy Cowell, PHAP program evaluator. "The idea of the PAC was to involve many people on the installation including the master planner, the Morale, Welfare and Recreation Program staff, the Community Health Promotion Council and the installation commander in looking at the big picture.

“Since we work at Aberdeen Proving Ground (Md.), it was the first test run of the CACHE,” explained Cowell. “It was different than how we would pilot it elsewhere since we were both the developers and the testers. With critical feedback from others involved we were able to reevaluate and quickly make necessary changes.”

Working with Robert Melascaglia, APG master planner, Cowell and Hsu looked at the physical environment of the installation. They were looking at bike lanes, sidewalks, exercise and recreational facilities, distances to eating locations and shopping, roads and all environmental aspects.

“I began looking at the post in a whole new way,” Melascaglia said. “When you begin to look at how the installation environment affects health, you are adding a new dimension to installation planning in trying to build walkable communities.”

“We also looked at recreation facilities and opportunities for free programs and plans for transporting workers,” explained Cowell. “This all became part of our toolkit.”

The health promotion team quickly realized that there could be a variety of installation environments.

Many of the issues identified from the results of the CACHE on APG are worked as part of the Community Health Promotion Council, said Wendy LaRoche, the APG health promotion officer. So the CACHE is already proving to be a valuable local asset, but it also needed to benefit other installations.

“As we looked at APG we had to change things in the toolkit to fit different situations that would be found at other installations. We had to build the CACHE toolkit so that it could be used to evaluate all installations,” Hsu said.

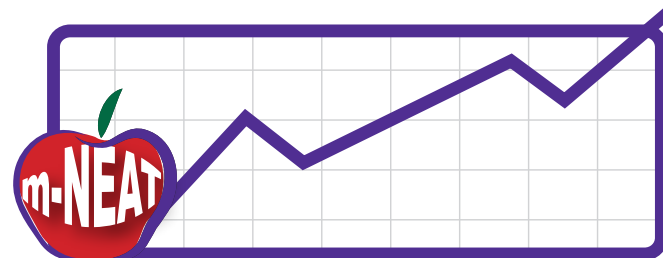
After using APG as a model for the toolkit, the team is planning the next step, piloting the toolkit at a variety of installations.



(LEFT) Bikers wear appropriate safety equipment and ride in bike lanes.



Creating Active Communities and Healthy Environments



Military Nutrition Environment Assessment Tool

The team plans additional evaluation and development of the tool, and they hope to create a management database to make it easier for people to access the tool kit and input data that can be evaluated.

“This would give those who are implementing the tool close to real-time feedback on their data; the ability to find out how they scored relative to other sites; and help in developing strength, weaknesses, opportunities and threat analyses,” explained Cowell. “This is what we hope to accomplish.”

Now Excel spreadsheets are filled out and sent back to USAPHC.

“This is good, but the rapid feedback to an interactive system would be easier and more convenient,” said Cowell.

Laura Mitvalsky, USAPHC’s Health Promotion and Wellness Portfolio director, is working closely with the Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy to work towards the end goal of using the CACHE as the baseline tool for the Healthy Base Initiative that will assess installations for all services, with nine installations to start. This initiative will kick off in 2013. The plan is to have a Web-based tool where installations can submit their CACHE results for a overall score.

(RIGHT) Safe areas for running encourage Soldiers to exercise on military installations.

As envisioned, the CACHE will provide the ability at a command level to give feedback to military communities using the toolkit. Commanders and their health promotion councils can see how they compare to other installations in building healthy communities.

“In addition, we will be able to compare ourselves to civilian communities and tell how the Army is doing,” Cowell said. “And we will also be able to offer evidence-based recommendations to installations who ask for assistance.”

Change will not be easy. Regulations and policy govern many aspects of installation planning, and these may have to be reviewed or changed to allow an optimum environment for health.

“The opportunities for affecting health through the CACHE are available,” said Keelin. “We hope to encourage leadership to make changes that will contribute to a healthy environment for our military communities.”

Mitvalsky says the next step is to develop a module for the CACHE that addresses how to create a tobacco-free environment. The Army surgeon general is spearheading this goal by saying she wants all medical treatment facility campuses tobacco free by April 2013.

Incorporating a tobacco-free module will enhance the ability of the CACHE toolkit to help installation commanders contribute to the health of their workforces and residents by pointing the way to better choices.

“We need to create an environment where healthy change can take place and the healthy choice is the easy choice,” Mitvalsky said.

The CACHE will provide the information to show how they are doing in reaching this goal. ▲



So what does the CACHE tool kit include?

The Creating Active Communities and Healthy Environments toolkit was designed to provide Army leaders with targeted information to implement policy, systems and environmental changes that support healthy activity and eating.

The toolkit is on a disk that opens to tabs explaining its contents.

- ☉ **Home tab** explains the contents of the toolkit and the objectives.
- ☉ **Overview tab** has information on the family member and retiree Healthy Weight Campaign Plan, obesity and environment.
- ☉ **Implementation tab** explains the five steps used to implement the toolkit, with links to important references.
- ☉ **m-NEAT tab** Lists the steps needed to conduct a baseline nutrition environmental assessment and links to the Military Nutritional Environment Assessment Tool materials.
- ☉ **PAC tab (Promoting Active Communities)** guides Army installations in making policy, systems and environmental changes that make it easier for residents to be physically active and links to PAC materials.

☉ **References tab** provides references used in developing the tool kit.

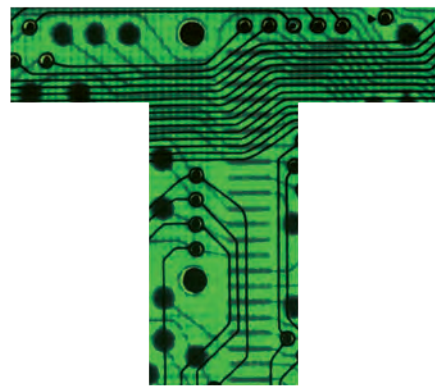
☉ **Tools tab** includes links to everything needed to implement the CACHE from meeting agendas to fact sheets and PowerPoint presentations. It also contains m-NEAT and PAC tool links to help those implementing these programs.

Copies of the toolkit CD may be obtained by contacting dhpwwebcontacts2@amedd.army.mil. ▲



STEM students learn from USAPHC professionals

JANE GERVASONI
USAPHC PUBLIC AFFAIRS OFFICE



WHAT DOES AN APPLE PEELER HAVE TO DO WITH ARMY PUBLIC HEALTH?

If you asked John Pentikis that question at the Nov. 20 Science, Technology, Engineering, and Mathematics Expo, he would have told you that apple peelers, like backpacks and other military equipment that are ergonomically designed, are less likely to cause injury to those who use them.

Pentikis, an ergonomist at the U.S. Army Public Health Command, provided a demonstration for more than 50 ninth-grade students from local high schools at the Aberdeen Proving Ground–South location of the annual Team APG Science, Technology, Engineering and Mathematics Expo.

Pentikis explained that ergonomically designed tools and equipment could protect Soldiers and Department of the Army civilians from suffering musculoskeletal injuries.

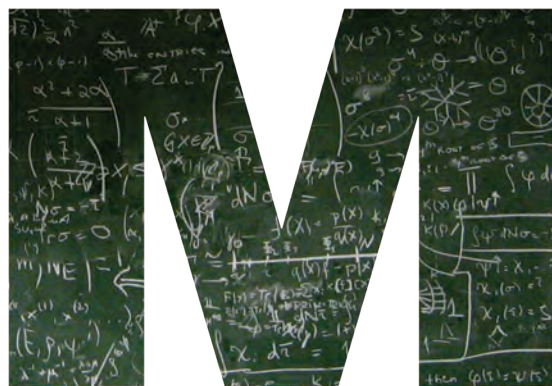
In addition to ergonomics, USAPHC also had demonstrations from the Industrial Hygiene Program, the Army Hearing Program and the Health Promotion and Wellness Portfolio.

Brett Huntington and Jennifer Mancini, industrial hygienists, explained what industrial hygienists do and how they use equipment to perform assessments in workplaces. Students saw personal sampling media and pumps and learned how samples were sent to USAPHC laboratories for complete analysis.

Mancini explained that direct-reading instruments such as photoionization detectors are used to locate and determine if it is safe to enter contaminated areas. She and Huntington also spoke about workers who experience thermal stress or the physical and physiological reactions to temperatures outside of the normal comfort zone. Individuals who must wear chemical resistant suits and other personal protective equipment in areas of possible contamination are especially vulnerable to thermal stress and need to be monitored to prevent injury.

Mancini's demonstration of a sound-level meter used to identify areas with hazardous noise levels from processes and/or equipment led students to the next demonstration about hearing conservation.

Maj. Melissa Leccese and Sharon Beamer, both doctors of audiology in the Army Hearing Program, explained the anatomy of the ear and the importance of being aware of sound intensity levels.



John Pentikis, U.S. Army Public Health Command ergonomist, has students use a hand dynamometer to demonstrate the strength of their grip.

They brought “Jolene,” a modified fashion mannequin that measures sound levels of personal listening systems, such as iPods. Using Jolene, Leccese showed students what personal listening system volume levels are safe. She also discussed the dangers of listening to music at high volume levels, which may result in permanent noise-induced hearing loss and tinnitus. She also told the students about the engineering and physics required to develop Jolene and other equipment for measuring sound levels.

The students played computer games to help them understand what kinds and levels of sound can lead to long-term hearing loss. Beamer also showed the students different types of hearing protection and explained how individuals use them to protect their hearing.

Students rotated to the health promotion and wellness demonstration to learn about the Army Performance Triad—activity, nutrition and sleep.

Maj. Zack Solomon, USAPHC physical therapist and exercise specialist, had students participate in a balance demonstration. Standing on one foot with arms extended, the student lost his balance when Solomon pushed down on his arm. However, when wearing a “magic” pair of safety glasses, the student's balance improved.

“The glasses are not magic,” explained Solomon. “Understanding where the center of gravity is. I can apply pressure in a slightly different direction down on the arm and get different results—balanced or unbalanced.”

Solomon went on to say that his specialties involved an understanding of the human body, but also required other STEM fields, including mathematics and geometry, to fully understand movement and exercise.

Trish Prosser, public health psychologist, added that being in one field of study does not mean people are stuck in one track. She told the students, “You can think outside the box and do many different things with your expertise, and it takes a lot of different professionals working together toward a common goal to prevent disease and injury.”

The students had the opportunity to hear from senior leaders of the eight organizations who sponsored demonstrations at the expo, and at each of the technical areas, civilian and military subject-matter experts talked about the specialized STEM education required in their fields.

John Resta, Army Institute of Public Health director, urged the students to continue to study in STEM fields.

“You will make money doing fun and interesting things, and you will be continually challenged to excel,” he said. ▲

USAPHC SOLDIERS COMPETE FOR BEST MEDIC

THIRTY-TWO TEAMS OF SOLDIERS FROM ACROSS THE ARMY COMPETED in a challenging 72-hour skills test at Camp Bullis, Texas, Oct. 26–28. Vying for the title of best medic were U.S. Army Public Health Command 1st Sgt. John Castillo, Headquarters and Headquarters Company, and Sgt. 1st Class Joshua Garcia, USAPHC Equal Opportunity Advisor.

Physical fitness, racing over the obstacle course and land navigation were only part of a hard-charging event designed to test Soldiers mentally and physically. Tactical Combat Casualty Care and a written exam measured their skills and knowledge.



Sgt. 1st Class Joshua Garcia and 1st Sgt. John Castillo, USAPHC competitors, near the finish line while carrying a litter with a simulated patient during the “buddy run” event of the Best Medic Competition. (U.S. Army photo)



Sgt. 1st Class Joshua Garcia passes his patient to 1st Sgt. John Castillo as they both negotiate an obstacle during the M9 pistol reflexive fire event. (U.S. Army photo)

“I have always wanted to compete because I saw it (Army Best Medic Competition) as the top competition that Soldiers in the medical field could compete in, and I wanted to see how I would fare,” explained Castillo. “Top physical fitness, an absolute necessity in a competition such as this, was definitely an advantage for those who worked hard to prepare.”

In addition to physical challenges, Soldiers were tested on treating casualties in different environments, during rescue operations, and treating, triaging and medical evaluation of patients during simulated enemy fire.

“We worked in a simulated combat support hospital and treated patients while avoiding enemy fire,” said Castillo. “We also treated and carried a patient through an obstacle course—it was very intense.”

“I spent countless hours preparing for this,” explained Garcia. “I rucked (hiked with a rucksack) over 30 miles to get my legs and feet ready for all the walking we were going to be doing.”

“At the end ... Castillo and Garcia better understood themselves and each other as professional Soldiers and tactical athletes,” said USAPHC’s Command Sgt. Maj. Gerald C. Ecker.

“This competition by far was the most rewarding experience I have endured in my professional military career,” said Garcia. “It is very intimidating to know you are competing against the top medical professionals throughout the U.S. Army, but when you are competing, you realize that you too are one of the best and that motivates you to BE the best!”

“Their experience sets them apart as validated modern-day gladiators, unafraid to enter the arena of competition with the Army’s best. They are recent standard-bearers of the best, and they are our command’s best.” Ecker said. ▲