

ONE HEALTH

PEOPLE ♦ ANIMALS ♦ ENVIRONMENT

Army Public Health Center (Provisional)

Fall 2015



▶ APHC breaks ground on new laboratory

PLUS:

- ▶ Local scouts learn about public health
- ▶ Toxicology Portfolio's new book

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FALL 2015 Vol. 5 No. 4

contents

FOCUS

- 3 APHC scientists discuss public health with 500 local scouts
- 4 Army Safety and Occupational Health leaders meet to chart way ahead

UPDATES

- 6 Public Health Command rehearses reorganization
- 8 Chaplain holds “spiritual resiliency” staff ride through Civil War history
- 10 News and Notes

MISSION

- 12 AIPH Toxicology Portfolio publishes book on wildlife toxicity assessments
- 14 Army entomologists release video on controlling mosquitoes
- 15 Solid waste characterization study conducted at Natick

PEOPLE

- 16 Officer discusses many contributions of Hispanics to military, government during local observance
- 18 Former student begins rewarding career at Army Public Health Center
- 20 Army Public Health Center holds groundbreaking ceremony

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(COVER): Lt. Gen. Patricia D. Horoho (center) U.S. Army Surgeon General and commander of the U.S. Army Medical Command, joins John Resta, director of the Army Public Health Center, and Col. John Teyhen, deputy director for the Army Public Health Center, as they break ground on a new laboratory facility Oct. 22 on the Edgewood area of Aberdeen Proving Ground, Maryland. (Photo Graphic by Christina Graber, Army Public Health Center (Provisional))



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APHC scientists discuss public health with 500 local scouts

CHANEL S. WEAVER
PUBLIC AFFAIRS OFFICE



Capt. Brian Knott, an entomologist in the Entomological Sciences Program, explains the contents of a mosquito breeder to local Scouts so they can recognize mosquitoes at home and identify breeding sites. The bottom half contains water and mosquito larvae, and after they emerge, the adults fly up into the top half. (Photo courtesy Army Public Health Center (Provisional))

Col. Joanna Reagan of the Health Promotion and Wellness Portfolio and Capt. Brian Knott and Kevin Harkins of the Environmental Health Engineering Portfolio, represented the Army Public Health Center at the “Science, Technology, Engineering and Mathematics Scouting” day held Sept. 12, at Aberdeen Proving Ground, Md. More than 500 Cub Scouts, Boy Scouts and Girl Scouts attended the event, which brought together young people from across the Mid-Atlantic region. The APHC was one of 25 presenters at the event.

Reagan, a program manager for Integrated Health Education at APHC, discussed the importance of selecting good nutrition options. Her presentation featured an interactive segment called “Rethink Your Drink,” which allowed the Scouts to calculate how many sugar cubes are in some of the most popular beverages.

“The goal is to convince the youth to choose healthier drink options like milk or water,” said Reagan.

Reagan’s presentation resounded with at least one participant, Star Scout John Urbach, a seventh grader, who upon discovering that some soft drinks contain 84 cubes of sugar, decided that he was not drinking those products anymore.

Another presentation that was popular with the attendees included the entomology demonstration. Knott and Harkins shared their expertise while discussing tick safety, local venomous snakes, proper use of insect repellents, how to identify mosquito larval habitat and use of bed nets during camping. Attendees had an opportunity to identify common bugs and discuss their

impact on human health. The scouts also enjoyed seeing a pop-up bed net that protects Soldiers in the field from insects, scorpions, snakes and other vectors.

“The goal of our presentation was to educate the Scouts on protecting themselves by avoiding bug and snake bites,” said Harkins.

Knott said he hoped the discussion also exposed the young people to exciting career paths in the Army.

“I just wanted to pass on what I learned throughout my career and hopefully train the next group of Army entomologists,” said Knott.

Representatives from the Aberdeen Proving Ground Army Wellness Center were also on hand to discuss the services they provide to Army and civilian personnel.

“It’s important that we introduce healthy nutrition and physical activity tips at a young age, so that we give our youth the tools they need to sustain a healthy quality of life,” said Chris Sorrells, director of the APG Wellness Center.

Although the event was geared to educate young people on the role of public health in disease prevention, many parents said they, too, were impressed by the presentations. Assistant Scoutmaster John Urbach, parent of the younger Urbach, said the event was both educational and inspiring.

“This is the fifth year that we’ve participated, and it is very well organized,” said Urbach. “It’s great to see Scouts work on Merit Badges in the areas of science, technology, engineering and mathematics and discover the variety of career opportunities those fields have to offer.” ▲

Army Safety and Occupational Health leaders meet to chart way ahead

MICHAEL J. NEGARD AND JON W. BLAKE;
 U.S. ARMY COMBAT READINESS CENTER,
 FORT RUCKER, ALABAMA

Leaders from the Army's Safety and Occupational Health community met at the Army Public Health Center headquarters at Aberdeen Proving Ground, Maryland, Sept. 10 to develop a partnership strategy aimed at enhancing readiness and preserving capabilities across the force.

Key leaders included John Resta, director of the Army Public Health Center (Provisional); Brig. Gen. Ronald Place, assistant surgeon general for Force Protection, office of the Surgeon General, U.S. Army Medical Command; Brig. Gen. Jeffrey Farnsworth, director of Army Safety and commanding general, U.S. Army Combat Readiness Center; and Brig. Gen. John Poppe, deputy chief of staff for Public Health (Provisional).

A key aspect of the meeting involved discussion of an October 2014 update to DoD Instruction 6055.01, which outlines new and expanded safety and occupational health policies, requirements and procedures, including consolidation of safety and occupational health into one program. Until last year, the Army's safety and occupational health

programs were distinct and separate. A December 2014 memo from Katherine Hammack, assistant secretary of the Army for Installations, Energy and Environment, directed the offices of the Director of Army Safety, Surgeon General and Deputy Assistant Secretary of the Army for Environment, Safety and Occupation Health to closely coordinate and cooperate in ensuring "the Army is

administering a comprehensive SOH Program and is protecting the safety and health of Soldiers, their family members and DA Civilians."
 "Our goal, as outlined in the DoDI, is to eliminate on- and off-duty mishaps and related deaths, injuries, occupational illnesses, and lost mission capabilities and resources," Resta said. "By definition, we can only accomplish this through teamwork,

collaboration and working toward common objectives."
 Another significant portion of the meeting involved a discussion regarding the development of an improved SOH incident reporting management system.
 "Developing an enterprise SOH management information system that serves the entire Army and synchronizes with safety, accident and

medical injury reporting systems is critical to better integrate safety and occupational health," Farnsworth said. "Integrated reporting, shared data access and enhanced analysis will enable us to see ourselves better so we can provide commanders with loss prevention programs and information needed to sustain our Army's readiness."
 While timelines are still fluid,

several milestones have been tasked for completion in the coming months, all with the target of formalizing the Army's SOH integration concept for senior leader review.
 For more information on safety and occupational health, visit <https://safety.army.mil> and <http://phc.amedd.army.mil/>. ▲

(From left to right) Brig. Gen. Jeffrey Farnsworth, director of Army Safety and commanding general, U.S. Army Combat Readiness Center; John Resta, director of the Army Public Health Center (Provisional); Brig. Gen. Ronald Place, assistant surgeon general for Force Protection, office of the Surgeon General, U.S. Army Medical Command; and Brig. Gen. John Poppe, deputy chief of staff for Public Health (Provisional), met at Aberdeen Proving Ground, Maryland, as Safety and Occupational Health community partners during the leaders' first SOH summit.



Public Health Command rehearses reorganization

CHANEL S. WEAVER
PUBLIC AFFAIRS OFFICE



“This was a good opportunity to make our voices heard and give our input on how to best perform our mission in the midst of change”

—Lt. Col. Gayle McCowin,
Environmental Health
Engineering Portfolio Director

The U.S. Army Public Health Command Reorganization Rehearsal of Concept (ROC) Drill was held Aug. 4-6 at the Mallette Training Center at Aberdeen Proving Ground, Maryland.

More than 100 attendees participated in the event, including representatives from the Office of the Surgeon General, all five PHC Regions and regional health commands, the USAPHC Commander, Army Institute of Public Health director, portfolio directors, portfolio executive officers and select program managers.

The event, organized by the Strategy and Innovations Office of the USAPHC, allowed participants to rehearse execution of the public health mission under the new Army Medical Command organizational structure and to propose updates to ANNEX Q (Public Health Enterprise) from MEDCOM Operations Order 15-08. The ROC Drill used many different scenarios to rehearse lines of communication and execution for technical public health missions between MEDCOM Public Health Enterprise organizations to synchronize the delivery of public health services across the Army and DOD for the care of the Warfighter, and, in certain situations, aspects of the



ROC drill attendees participate in break-out sessions to discuss innovative solutions to responding to various public health scenarios that may occur in the future.

nation overall.

Personnel were divided into groups, and they rehearsed responding to various public health scenarios that may occur in the future.

“This was a good opportunity to make our voices heard and give our input on how to best perform our mission in the midst of change,” said Lt. Col. Gayle McCowin, environmental health engineering portfolio director. “We are experiencing a paradigm shift in public health, and it’s exciting to be able to shape the future.”

“We identified the procedures that were working and noted the gaps that needed to be filled.”

—Col. Robert von Tersch,
commander of the
Public Health Command
Region-South

According to Lt. Col. David Derrick, deputy director of technical services at Public Health Command Region-Pacific, the dialogue in the groups was important to the success of the ROC drill.

“It was rewarding to see my colleagues in Army public health and to discuss the most efficient methods for responding to various contingencies,” said Derrick.

On the last day of the session, attendees worked to develop a document that outlined the responsibilities of all organizations within the public health enterprise.

Col. Robert von Tersch, commander of the Public Health Command Region-South, said the ROC drill was quite beneficial to attendees.

“The sessions were very informative, and we had good, stimulating discussions that centered on Army public health,” said von Tersch. “We identified the procedures that were working and noted the gaps that needed to be filled.”

Not only did PHC personnel find the drill worthwhile, but individuals from the regional health commands said attending the ROC drill provided an opportunity to learn more about the USAPHC mission.

“I learned a great deal about what Army public health professionals do,” said Lt. Col. Russ Chambers, of the Southern Regional Medical Command’s G-3 operations division. “We appreciated being invited to the event.”

In his closing remarks, Col. John Teyhen, USAPHC commander, encouraged attendees to remain focused on their mission to promote health and prevent disease, injury and disabilities of Soldiers, military retirees, their families, veterans, Army civilians, government-owned animals and pets of service members and their families.

“It is important that we continue the dialogue and document the best methods for delivering quality public health services,” said Teyhen. “We must remain a high-reliability organization that has consistent standards across the public health enterprise.” ▲

Chaplain holds “spiritual resiliency” staff ride through Civil War history

STORY AND PHOTOS BY
MONICA BULLOCK
 PUBLIC AFFAIRS OFFICE



A tour guide starts off the Monocacy battlefield tour with an overview of the history of the Civil War and a display of an authentic canon.

Lt. Col. David Bowerman, Army Public Health Center chaplain, organized a trip to the National Museum of Civil War Medicine and the Monocacy Battlefield in Frederick, Maryland for the organization’s employees July 10. The ride was centered on the theme of “Moral Injury and Spiritual Resiliency.” The ride was funded by the Aberdeen Proving Ground Chapel tithes and offerings Fund as Soldier ministry.

When asked what compelled him to organize a trip like this, Bowerman responded that a book called *This Republic of Suffering:*

Death and the American Civil War by Drew Gilpin Faust and a PBS film called *American Experience: Death and the Civil War* were very shocking and sobering explanations that delved deeper into the costs of the American Civil War both physically and spiritually. He wanted the staff and Soldiers to see such hardships for themselves and apply spiritual resiliency to their own lives.

As quoted from the spiritual health page on the Army website: “Spirituality is often defined as a sense of connection that gives meaning and purpose to a person’s life. Spirituality is unique to each individual, and refers to the deepest part of you.”

To elaborate on this subject, Bowerman gave a 30-minute presentation on the bus ride to Frederick on what life was like in Civil War times for the common Soldier and how the deeds they had to commit sometimes made them feel religiously or even just spiritually compromised. These “moral injuries” were just as detrimental as physical wounds and needed prompt attention.

“Spiritual health is so important because it’s what keeps us going, just like we need food and sleep,” said Bowerman, “Regardless of people’s different faiths and religions, what everyone has in common is the need to be sustained morally and spiritually.”

Cherith Ostini, a 23-year-old new Soldier who attended the staff ride, said that even if you do not have a religion, your morals affect

the way you see the world and how you function.

“In the Civil War when they were fighting each other, they must have had a fighting crisis of faith inside themselves too,” she added.

The first stop of the trip was at the National Museum of Civil War Medicine, where a tour guide led the group through the museum and told real stories of how medical procedures were done in the Civil War era, expounding on artifacts and displays from surgeons’ personal diaries and medical kits with bone saws to exhibits of makeshift barn hospitals and authentic tents from the medics’ campsites.

“The displays were impressive and really brought you back in time,” said Deanna Harkins, a physician and civilian who also attended the staff ride. “It was interesting to see how much the medical field came together in a time with so much death and suffering.”



A tour guide starts off the Monocacy battlefield tour with an overview of the history of the Civil War and a display of an authentic canon.



A replica of a Civil War canon on the Monocacy battlefield.

The second half of the day was spent touring Monocacy Battlefield with another tour guide, who relayed significant events that occurred on multiple different grounds such as fields, homes and plantations.

“It’s important to learn about our history,” said Ostini, who originated from California and now is taking advantage of all the historical sites the East Coast has to offer, “because these stories aren’t just stories, they happened in real life.”

All in all, many attendees, including the chaplain himself, expressed how much they enjoyed the staff ride by not only getting out of the office but by learning and walking in the footsteps of Civil War history.

“It’s so great that the Army is putting more focus on moral injury and spiritual health nowadays,” said Harkins, “It’s significant to me because of my own faith, and it’s important for everyone to know the principles behind coping and healing.”

She was grateful that the staff ride was open for civilians to embark on as well, and that it offered something special for everybody, Soldiers and civilians alike.

Bowerman summed up the idea of spiritual health emphasized on the trip.

“Even though we have events in life that make us question our faith, our spiritual resiliency can carry us through.” ▲



For more information on spiritual health, scan the code to the left or visit the Web site below:

<http://phc.amedd.army.mil/topics/healthyliving/bh/Pages/SpiritualHealth.aspx>

NEWS AND NOTES

FROM AROUND THE CENTER

Kelsey McCoskey and Lt. Col. Jay Clasing, Occupational Health Sciences Portfolio, attended the Army Lean Six Sigma Excellence Award Program (LEAP) Ceremony in recognition of McCoskey's green belt project selection as a LEAP award winner. The ceremony was held in the Hall of Heroes at the Pentagon and recognized the organizational and project team efforts using Lean Six Sigma methodologies to transform business process, save time and money and improve quality. Award winners were chosen by a selection board of 11 experts from organizations across the Army.

Col. Joanna Reagan, Health Promotion and Wellness Portfolio, discussed the importance of incorporating the Performance Triad into everyday life at the Aberdeen Proving Ground Community Partnership for Education event at Aberdeen High School Sept. 26. The event was sponsored by APG Senior Commander Maj. Gen. Bruce T. Crawford and included partners in education from Baltimore County, Harford County and Cecil County.

Tim Schickedanz, Health Risk Management Portfolio, provided health risk communication training for occupational medicine courses in Hawaii and Korea Sept. 23-24, 2015. This training was conducted via video teleconference. Risk communication training helps occupational medicine professionals and providers enhance their risk communication skills with a focus on communicating in high contentious/low trust situations while establishing and improving credibility and trust.

The Epidemiology and Disease Surveillance's Portfolio's Behavioral and Social Health Outcomes Program sent a 10-person team to conduct an epidemiological consultation, or EPICON, at Schofield Bar-

racks, Hawaii on Sept. 20. The purpose of the EPICON was to conduct an assessment of high-risk behaviors among 25th Infantry Division Soldiers with a focus on informing risk mitigation strategies for behaviors related to safety, suicide, substance use and sexual assault. The BSHOP team conducted targeted surveys, focus groups and individual interviews.

Capt. Susan Gosine, Epidemiology and Disease Surveillance Portfolio, was the guest speaker at a Science Café held at Bel Air, Maryland library on Sept. 23. Gosine discussed flu prevention. Sponsored by the Northeastern Maryland Technology Council, Science Cafés are held monthly to encourage individuals to learn about a specific science and technology topic that affects everyday lives from a local expert.

Dr. Robert Kang, Occupational and Environmental Medicine Portfolio, has been providing support to the Global Emerging Infections Surveillance and Response System portfolio of infectious disease surveillance activities with reviews of 193 proposals for Fiscal Year 2016 funding. Before rejoining the Tri-Service Vision Conservation and Readiness Program in July 2015, Kang was APHC's Human Protections Administrator. In this role, Kang supported GEIS with public health activities vs. human subject's research determinations on proposed activities. These critical determinations ensure protection of human subjects and data and compliance with human protection regulations.

The Environmental Health Engineering Portfolio supported the Aberdeen Proving Ground, Maryland "Reduce, Reuse, Recycle Training/Information Event." Experts in the portfolio displayed sustainable products that promote resource conservation and a healthy work environment. Experts also presented a 30-minute training session on how APG employees can support the APG Net Zero Waste initiative.

Dr. Anthony Gutierrez, a molecular biologist in the Laboratory Sciences Portfolio, was granted a patent from the U.S. Patent and Trademark Office, for a macropod imaging system he developed to create high-resolution images of medically important arthropods such as mosquitoes and ticks. The macropod system can assist Soldiers with identifying disease transmitting arthropods that present danger in various locations around the globe. Although the image system was developed with a public health purpose of preventing insect-borne disease, the system is currently being used by the United States Geological Service, National Pest Management Board, University of Connecticut, and many other entities to identify insects.

The Toxicology Portfolio collaborated with scientists across the federal government to develop and validate the U.S. Environmental Protection Agency's Office of Chemical Safety & Pollution Prevention's Test Guideline 890.2100: Avian Two-Generation Toxicity Test in the Japanese Quail. This toxicity test is part of a series of test guidelines established for the EPA's Endocrine Disruption Screening Program to determine if pesticides disrupt hormone (estrogen, testosterone, thyroid hormones, etc.) production and function. The Army's participation in developing these test guidelines helps to ensure that the test methods are protective of human health and the environment while providing data on compounds of military interest. ▲

Toxicology Portfolio publishes book on wildlife toxicity assessments

MONICA BULLOCK
PUBLIC AFFAIRS OFFICE

The Toxicology Portfolio of the Army Public Health Center (APHC) recently authored a new book: *Wildlife Toxicity Assessments for Chemicals of Military Concern*.

Back in 2000, individuals from the Health Risk Management Portfolio and the Toxicology Portfolio developed a method to search, document and categorize toxicology information for substances of military concern to assist with making decisions at contaminated military sites. The Army Environmental Command through the Installation Restoration Program supported these efforts.

The need was to assist in characterizing the risk for wildlife resources at hazardous waste sites where toxicity values were largely available for humans, but not for wildlife. The Toxicology Portfolio helped to develop these values to enable installations to make sound decisions regarding remediation alternatives.

“APHC is not just about human health but the health of the environment around us,” said Dr. Mark Johnson, Director of the Toxicology Portfolio and one of the four main editors of the new book. “The One Health approach demands that we approach injury prevention through and understanding of human health and the environment. Diseases come to us from the environment; the environment can be adversely affected through human activity. Everything is interconnected. We need to be good ambassadors of our environment, and the Army takes that responsibility seriously.”

According to Dr. Johnson, wildlife toxicity assessments and Toxicity Reference Values, or TRV,

have been derived for more than 15 years; the first set was published in 1991. Elsevier, a well-known scientific publisher, approached Johnson last year through collaboration meetings and asked if the department would like to publish these assessments. The book idea came to fruition when Dr. Mark Williams, a biologist and immunotoxicologist, joined APHC in March of 2014 after working at the U.S. Environmental Protection Agency and the National Institutes of Health.

Dr. Williams became the primary editor of the book and oversaw its progress in production and publication. The book was co-edited with Drs. Michael Quinn, Gunda Reddy, and Mark Johnson. According to Dr. Williams, the book contains 35 thematically focused chapters and includes a preface that also introduces narrative profiles of each editor and each of the authors. The first two chapters concern best practices and methodological approaches for deriving and evaluating Toxicity Reference Values (TRVs), and discuss different chemicals and compounds that had effects on wildlife and the environment.

There were about 30 different

contractor and federal government authors involved in the making of the book and Elsevier and Academic Press were involved in the publishing.

Dr. Williams said they worked very hard to make this book production possible.

“I have worked in the settings of academia, the U.S. EPA, and the National Institutes of Health and have never witnessed the ‘can-do’ attitude, willingness to collaborate, and interest in other’s work by fellow colleagues as I have witnessed here every day in the Army Public Health Center,” said Dr. Williams.

The entire writing and publishing process took approximately one year to complete. Dr. Williams said the initial meeting to begin production on the book occurred in April 2014, following which the first drafts, or “skeleton outlines”, were completed in early July. Each author received an electronic package containing the assigned content for a chapter and a style guide written by Dr. Williams called Author Style Guide and Book Chapter Format to promote uniformity.

The drafts went through multiple editorial “cleaning-up processes”

with the intention that each edited version of the document improved the content and quality of the work. This was made possible by collaborative workflows between the editor, the author, and the publishers, wherein Dr. Williams could follow the revision and production process in real-time through an online manuscript submission and monitoring portal.

“The inquiries from the publisher and the authors required daily nursing,” Williams said, when talking about the revision and editing process. He monitored the progress of all of the authors’ edited drafts using a Microsoft Excel pivot table and spreadsheet. Co-editors Quinn, Reddy and Thompson also contributed invaluable expertise in cross-referencing and fact-checking all of the information and data content to ensure its accuracy and quality, which as one might imagine, was very labor intensive.

“We wanted to use the most updated literature we could find to make it the best quality we could,” said Dr. Johnson.

The final drafts went through several levels of review at APHC for evaluation and clearance to ensure that the content was suitable for public release.

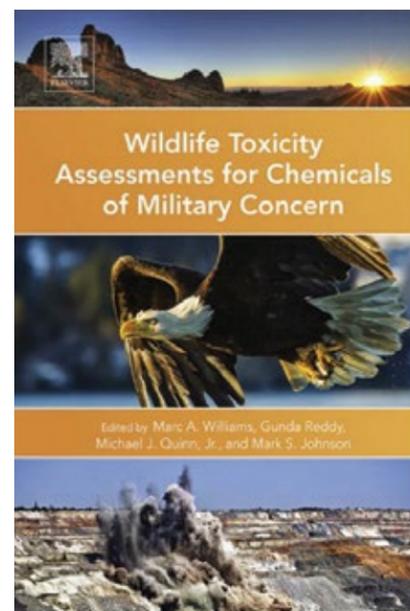
Before the book was published in final form, there were already 30 pre-orders, which have now presently grown to about 200.

“We are hoping that this book will be used by our partners, customers and stakeholders,” said Williams, “It will be utilized as a professional risk assessment and decision-making tool and as a resourceful reference document.”

The Toxicology Portfolio believes this book will make a difference by providing an invaluable resource to access risk at cleanup sites and other sites of military concern. Many of the profile use the same data appropriate for human health applications that can benefit the public.

Dr. Williams is quietly confident of the likely success of *Wildlife Toxicity Assessments for Chemicals of Military Concern*.

“Being constantly aware of the data and the latest trends in the development of improved approaches and technological tools has enabled us to deliver a product of the highest possible quality that many in the field of ecological and environmental risk assessment will likely adapt as a resource guide for many years to come,” said Dr. Williams. ▲



ARMY ENTOMOLOGISTS RELEASE VIDEO ON CONTROLLING MOSQUITOES IN AND AROUND THE HOME

ZIA MEHR
ENTOMOLOGIST
ARMY PUBLIC HEALTH CENTER



An “*Aedes aegypti*” mosquito, which can transmit yellow fever, dengue fever and chikungunya, is pictured above.

Summer is officially here and many individuals are spending more time outdoors. Being outdoors increases one’s risk of being bitten by mosquitoes. Not only do mosquito bites make outdoor activities unpleasant, their bites can transmit diseases to people and domestic animals. In the United States, mosquitoes can spread West Nile fever, dengue, chikungunya and several other debilitating diseases. Mosquitoes are also responsible for transmitting heartworm in dogs.

To better educate Army personnel on what they can do to protect against mosquito-borne disease, the Entomology Program of the Army Public Health Center has released a video on controlling mosquitoes in and around the home. The video can be reviewed on Youtube.

All mosquitoes have one common requirement—they need water to complete their life cycle.

“Mosquitoes grow in almost any source of water, including fresh water (even if heavily polluted), saltwater marshes, brackish water and sewage. Mosquitoes can live in the water in tin cans, bird baths, barrels, ornamental ponds, boats, canoes, discarded tires, plant pots, clogged gutters and poorly-maintained swimming pools,” said Tom Burroughs, entomology program manager at the APHC.

Army entomologists say there are steps one can take around the

home to decrease mosquito breeding and basic personal protective measures that can reduce one’s chances of being bitten. According to the video, controlling mosquitoes in and around the home can be accomplished by reducing larval and adult populations and avoiding contact with mosquitoes. Mosquitoes also bite indoors, so individuals need to prevent mosquitoes from gaining entry into living and sleeping quarters and eliminate those that might already be there.

Entomologists want individuals to keep in mind that adult mosquitoes can fly several miles from the water source where they developed. Therefore, attempts at controlling mosquitoes on certain premises may not eliminate all biting activity.

A community-wide effort may be needed to reduce mosquito levels, according to APHC personnel.

“This will require the cooperation of neighboring homeowners, home-owners associations, and local government agencies to reduce adult populations and breeding sites,” said Burroughs.

To view the video “Control of Mosquitoes In and Around the Home,” visit this website:

https://www.youtube.com/watch?v=YEHNEIUEeR4&feature=iv&src_vid=1tYQC1c3yew&annotation_id=annotation_1241313611 ▲



Solid waste characterization study conducted at Natick

PHOTOS AND STORY BY
TAZANYIA L. MOUTON
USAG NATICK PUBLIC AFFAIRS



Tracy Merchel and Kim Fleischmann of the Environmental Health Engineering Portfolio weigh individual pieces of trash during a solid waste characterization study recently completed at the Natick Soldier Systems Center.

NATICK, Mass. -- A team of three from the Army Public Health Center were recently at the Natick Soldier Systems Center, or NSSC, conducting a solid waste characterization study to assess the amount of trash the installation is producing.

“[The study] will help the installation save money in the long run when we determine how much of the solid waste that goes out in our trash cans is recyclable, how much is organic material, [and] how much of it is truly solid waste,” said Rich Valcourt, an environmental engineer with U.S. Army Garrison Natick.

This study gives Valcourt valuable information to better assess the installation’s needs. Valcourt said the study is “going to dictate how we see down the road [and] whether we need to strengthen our recycling policies.”

Performing the study will also give Valcourt a better idea of what NSSC’s footprint will look like going forward.

The APHC’s mission included receiving trash from each building, sorting through each bag, and weighing the trash by each of 30 categories.

The main categories were paper,

plastic, metal, glass, organics, construction and demolition waste, and special waste.

Kim Fleischmann, an environmental scientist with APHC, said in a majority of instances, these studies are done to help an installation set up or improve a recycling program.

“The recycling here is pretty good,” Fleischmann said. “We’re not getting a lot of white office paper, [and] people are doing a very good job with cardboard and aluminum cans.”

“We usually try to give real data to figure out how you should focus, where you can improve or set up your programs.”

Fleischmann said here at Natick, programs are already in place; they just need to be improved.

“The Army’s goal is to try to [get] to net zero waste, which means you

are recycling or reusing everything and there’s no actual waste,” Fleischmann said.

Valcourt said that each time you throw something away, you should think about recycling it, instead.

“It doesn’t matter what you wear on your shoulders or what your pay grade is,” Valcourt said. “We all work here, and we need to do the right thing.” ▲



Officer discusses many contributions of Hispanics to military, government during local observance

CHANEL S. WEAVER
PUBLIC AFFAIRS OFFICE

As the chief of the Client Services Division in the Army Public Health Center's Laboratory Sciences Portfolio, Lt. Col. Jose M. Pizarro Matos often thinks of "diversity" in a technical way when he examines the various chemical and biological samples that are sent to his lab to determine their effect on Soldier health.

But Pizarro Matos discussed "diversity" in more general terms when he served as the guest speaker for a Hispanic American Heritage Month celebration hosted by the U.S. Army Medical Research Institute of Chemical Defense Sept. 23.

Hispanic American Heritage Month is celebrated annually between Sept. 15 and Oct. 15, and the theme of the USAMRICD event was "Energizing Our Nation's Diversity." Pizarro Matos discussed the roles that Hispanics play in American culture, including such areas as government, science and the entertainment industry.

As he stood in USAMRICD's new state-of-the-art building at Aberdeen Proving Ground, Maryland, Pizarro Matos emphasized the contributions that Hispanics have made to the U.S. armed forces.

"Hispanics make up about 16 percent of the Army civilian workforce, and about 13 percent of the active-duty Army population," said Pizarro Matos.

The Army scientist, who was born in Puerto Rico, also described aspects of his childhood and his decision to join the Army. He also shared that military service was a tradition in his family, noting that his sister and brother-in-law also served in the Army.

During the event, attendees from USAMRICD and APHC, heard excerpts from Barack Obama's Presidential Proclamation on National Hispanic Heritage Month, asking Americans to renew their



Lt. Col. Jose M. Pizarro Matos served as the guest speaker for a Hispanic American Heritage Month celebration hosted by the U.S. Army Medical Research Institute of Chemical Defense Sept. 23.

commitment "to honoring the invaluable ways Hispanics contribute to our common goals, to celebrating Hispanic culture and to working toward a stronger, more inclusive and more prosperous society for all."

The attendees were also invited to participate in a dance session where they learned how to perform dance moves from the Hispanic American tradition.

Finally, the event concluded by allowing participants to sample various dishes from the Hispanic American cuisine.

Col. Roman Bilynsky, USAMRICD commander, presented a certificate of appreciation to Pizarro Matos for his role in making the event a success. Participants said that Pizarro Matos' message of inclusion teaches an important lesson.

"I wanted people to understand that our diversity is what makes us stronger," said Pizarro Matos. "We should accept people, no matter where they come from." ▲

“ I wanted people to understand that our diversity is what makes us stronger. ”

—Lt. Col. Jose M. Pizarro Matos,
Army Public Health Center
Laboratory Sciences Portfolio
Chief, Client Services Division

A group of male attendees learn how to perform dance moves from the Hispanic American tradition during a Hispanic American Heritage Month celebration hosted by the U.S. Army Medical Research Institute of Chemical Defense Sept. 23.



Dr. Caitlin Rivers, an epidemiologist and SMART scholar who earned a permanent position at the APHC, discusses the process of peer review of technical journals with Victoria Tully, a summer intern at APHC.



FORMER STUDENT BEGINS REWARDING CAREER AT ARMY PUBLIC HEALTH CENTER

A brand new epidemiologist, Dr. Caitlin Rivers, has joined Army Public Health Center through the Science, Mathematics and Research for Transformation, or SMART Scholarship Program.

Just shy of a month into the appointment, Rivers is excited to work with Army data, which she believes will become a worldwide paradigm for future public health research and improvement.

Through a full-tuition grant, the highly competitive SMART scholarship offers undergraduate and graduate students the opportunity to complete their science, technology, engineering or mathematics degree in accordance with the scholarship's mission to encourage civilian pursuance of engineering and science within the Department of Defense. Aside from the funding, the SMART scholarship provides the students with summer internships, mentoring and a guaranteed position in one of the DOD's workplaces after their educational tenure.

As a scholarship recipient, Rivers found the different viewpoints and career paths in government work as rewarding tools, especially valuing the job security, a rarity among doctoral graduates. After being assigned to the

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SMART
SCIENCE, MATHEMATICS
& RESEARCH FOR
TRANSFORMATION
PART OF THE NATIONAL DEFENSE
EDUCATION PROGRAM



Dr. Caitlin Rivers has joined Army Public Health Center through the Science, Mathematics and Research for Transformation, or SMART Scholar Program.

Army Public Health Center through a process comparable to medical residency matchups, Rivers began her position in the epidemiology and disease surveillance portfolio in late July through the SMART Scholarship program.

"The data available in the Army is some of the best in all of epidemiology," said Rivers. "It's high quality, linked, longitudinal and well-integrated with public health services."

While continually interested in health, Rivers discovered public health in the federal government could combine all of her academic passions.

"Growing up I wanted to be a doctor, then a foreign service agent, then an anthropologist," said Rivers. "As an epidemiologist with the DOD, I get to do all of those things!"

As an anthropology major at the University of New Hampshire, Rivers

first encountered public health during her freshman year while reading Tracy Kidder's bestseller *Mountains Beyond Mountains*, a nonfiction novel that chronicled anthropologist and physician Paul Farmer's quest to cure infectious diseases and introduce modern prevention techniques to those in underdeveloped countries. Inspired by the work, Rivers concentrated her undergraduate studies on medical anthropology before earning a Master's of Public Health degree specializing in infectious disease at Virginia Technical Institute. Through this experience, Rivers found her niche in public health and decided to continue at Virginia Tech for a doctoral degree in genetics, bioinformatics and computational biology, becoming a SMART scholarship recipient during her second year of doctoral studies.

In her position at the APHC, Rivers is now monitoring and tracking trends in infectious diseases and finding out why they occur. She says that she loves learning more about the portfolio and having more opportunities to work on projects.

"More epidemiology happens within federal government than civilians realize. It's interesting to be a part of it," said Rivers.

In the duration of her career at APHC, the scholar hopes to apply her computational skills to projects while also networking and learning more about the epidemiological opportunities in federal work through her colleagues and mentor, Capt. Susan Gosine.

Like Rivers, Gosine, who herself is earning a doctoral degree in global communicable disease at University of South Florida, focuses on data collection and modeling in her

position as data cell lead in the same program. As the SMART scholar's mentor, Gosine says that Rivers is well-equipped for the field and hopes to guide her in utilizing military and federal tools to accomplish her career objectives.

"It's important for us to mentor young professionals because we need that fresh material and ambition that's being taught in schools to be injected into the Army," said Gosine.

While new to Army public health, Rivers has accrued a plethora of noteworthy publications and achievements throughout her years in academia. In addition to her role as a SMART scholar, Rivers serves as a fellow for the Emerging Leaders in Biosecurity Initiative and as a presenter at various conferences and panels, namely the American Public Health Association and the International Conference on Digital Detection.

When she is not developing her new epidemiology software package, Rivers enjoys spending time with her husband, a mechanical engineering doctoral student, and their toddler. ▲

Army Public Health Center holds groundbreaking ceremony for new laboratory building

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The Army Public Health Center hosted a groundbreaking ceremony for a new, state-of-the-art laboratory building Oct. 22.

Several hundred individuals were on hand to witness the ceremony—including Soldiers and civilians, elected officials, retirees, business executives and other members of the community.

Lt. Gen. Patricia D. Horoho, the Army Surgeon General and commander of the U.S. Army Medical Command was the keynote speaker of the event. In her remarks, she said the groundbreaking was a historic moment for the APHC.

“This has been a labor of love from this community,” she said. “The Army’s investment in the new facility is a symbol of their respect and their appreciation of the vital role of this great organization.”

Currently, APHC’s occupational and environmental health operations, analytical laboratories, as well as toxicology testing laboratories and the associated infrastructure support, are housed in 10 outdated buildings scattered over a wide area in Aberdeen Proving Ground, Edgewood Area. Most of these buildings are circa World War I and pre-World War II structures, ranging in age up to 90 years.

The new laboratory will optimize the current and emerging public health surveillance missions of the APHC. The \$210 million structure

will allow staff from many of the various APHC portfolios to work in one location and with shared logistical and operational assets, in a space of approximately 279,000 gross square feet

“This project has been at least 25 years in the making, and it is exciting to see it come to fruition,” said John Resta, director of the APHC.

Staff who occupy the building will include military and civilian personnel who are biologists, chemists, toxicologists, industrial hygienists, health physicists, veterinary pathologists, laboratory animal veterinarians, animal care technicians and other public health professionals who have a significant impact on operational readiness and sustainment by continuously evaluating products and compounds to keep Soldiers ready and DOD employees, animals and their environment safe.

Lt. Gen. Patricia D. Horoho, U.S. Army Surgeon General and commander of the U.S. Army Medical Command, welcomes those in attendance at the Army Public Health Center laboratory groundbreaking ceremony Oct. 22. (Photo by Christina Graber, Army Public Health Center (Provisional))

