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#### **Commanding Officer's Comments**

**PUBLIC HEALTH CENTER UPDATE** 

By Capt. Todd Wagner, NMCPHC

As I have hit the first 100-day mark as Commanding Officer (CO) of the Navy and Marine Corps Public Health Center (NMCPHC), I am continually impressed by the professionalism, expertise and pride displayed daily by everyone involved in the NMCPHC enterprise.

In those 100 days, the Command Master Chief (CMC) and I have had the absolute pleasure to visit eight of the ten field activities (don't worry NEPMU-6 and NEPMU-7... we're on our way shortly!). In every command and facility, I have had the opportunity to tour, meet and talk with the staff and I am so humbled and honored to be working amongst such an unbelievable group of experts. The complexity of the tasks you tackle and the spirit and energy with which you put into the job are second to none in Navy Medicine.



In addition to your demanding

"day jobs," many of you have been asked to manage important programs on behalf of the Command. Many of these were inspected in recent Medical Inspector General (MEDIG) assessments, at HQ and many field activities, and the results were exemplary with best practices and kudos given by the MEDIG team. These programs are very important and speak to an extremely detailed

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level of oversight and dedication needed to manage NMCPHC. For that management, I congratulate and thank each and every program manager.

Since arriving at the Command, I have also had the pleasure to announce our Sailors and Civilians of the Year for the NMCPHC enterprise. They were:

Senior Sailor of the Year (SSOY) PO1 Alfredo Winter (NEPMU-5)

Junior Sailor of the Year (JSOY) PO2 Jade Tapia (NEPMU-5)

Category 2 Civilian of the Year (COY)
Ms. Jessica Newton (NMCPHC HQ)

Category 1 COY

Mr. Eric Skorupski (NEPMU-5)

These outstanding folks were selected from a great group of incredible performers. To be able to congratulate them is truly the highlight of my job! Well done to all!

Lastly, NMCPHC now has a new Immediate Superior in Command (ISIC) Commander as Navy Medicine East (NME) recently had a change of command. Rear Admiral (RDML) Iverson has provided a remarkable level of support and advocacy over the past year as NME commander. We thank him immensely for everything he has done and wish him the best as he retires after 30 years of dedicated service to Navy Medicine. We welcome RDML Swap as the new NME Commander and we look forward to working with her over the coming months and years.

It has been a great first 100 days and I look forward to the many months to come!

#### **Command Master Chief's Corner**

By Master Chief Petty Officer (MCPO) Marsha Burmeister, NMCPHC



NMCPHC, it has been an eventful year! We continue to make a footprint on global evolutions by all the great work that the enterprise accomplishes, which is a testimony to all the hard work and dedication you continue to display. Your efforts do not go unnoticed and are greatly appreciated. It has been a pleasure getting to meet the staff at not only Headquarters, but at our activities as well. Thank you for making the transition to NMCPHC one of welcoming.

Congratulations to all of our "Of the Quarter" and "Of the Year" nominees and winners. This is a commendable accomplishment. Continue to strive to make a difference in our organization; there is always room for improvement. Bring someone along-side so they too can benefit along with our command.

Congratulations are also in order for all those who were promoted and/or advanced this past year. For those who did not accomplish this milestone, continue to press forward and prepare for the next opportunity. Utilize your mentors and leaders to assist you in this preparation process. Ensure you review your bibliographies and precepts to confirm that you are preparing with the most up-to-date information.

Several changes have occurred within the military and the Department of the Navy this past year. Continue to review policies, NAVADMINS and complete required training. Educate yourself so that you can assist with ensuring procedural compliance.

I hope each of you are able to spend some time relaxing during the upcoming holidays. Ensure you have a plan to keep you and your loved ones safe (i.e., designated driver, UBER, etc.). Happy Holidays, I cannot wait to see what we will accomplish in 2017!

#### **Know This Before Supplementing**

By Leisha Ferguson, Public Health Educator, NMCPHC

Dietary supplements are used by more than half of the adult population in the United States. Supplement usage continues to be a very hot topic in our military community.

Whether it's in the gym while working out or during lunch break with your colleagues, the topic of supplements is bound to be discussed.

Many people consume dietary supplements for a

variety of reasons. Supplements are used with the expectation of enhancing weight loss, optimizing health, preventing illness, increasing energy and sexual enhancement, and to self-treat an illness. Consumers obtain information on supplements from a variety of sources, such as health professionals and the media.

A dietary supplement is a product intended for ingestion that contains a dietary ingredient intended to add further nutritional value to supplement the diet. A dietary ingredient may be one, or any combination, of the following substances:<sup>2</sup>

- a vitamin
- a mineral
- an herb or other botanical
- an amino acid
- a dietary substance for use by people to supplement the diet by increasing the total dietary intake
- a concentrate, metabolite, constituent or extract

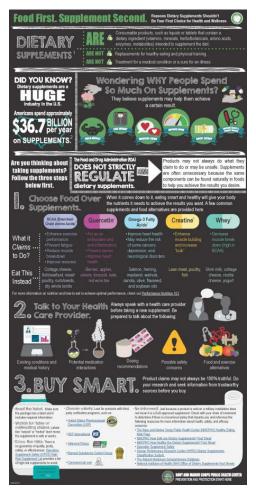
Dietary supplements may be found in many forms, to include pills, capsules, powders, liquids, energy bars, energy drinks and gels. Supplements do not have to go through the same testing as that of prescription medications. Service members should use caution when consuming supplements and be aware of all listed ingredients in the supplements they chose to

consume. The Food and Drug Administration (FDA) has received numerous reports of harm associated with some supplements, including stroke, liver injury, kidney failure, heart palpitations and death. Consumers should be aware of these products and

learn how to identify and avoid them.<sup>3</sup>

Some supplements may interfere with the action of prescription or over-the-counter medications you take, increasing their side effect or rendering them ineffective. One should make sure that their health care provider is aware of all supplements consumed.

At Navy and Marine Corps Public Health Center (NMCPHC), we're here to help you learn more about the safety and usage of dietary supplements. Operation Supplement Safety (OPSS) is a joint initiative between the Human Performance Resource Center (HPRC) and DOD to educate service members, retirees, family members, leaders, healthcare providers and DOD civilians about dietary supplements and how to choose wisely.



Read the full article here: <a href="http://navymedicine.navylive.dodlive.mil/archives/11497">http://navymedicine.navylive.dodlive.mil/archives/11497</a>

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- 3. U.S. Food and Drug Administration. Beware of Fraudulent Dietary Supplements. http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm246744.htm Accessed September 13, 2016

## Navy Antibiotic Prescribing Practices and National Guidelines

By Jonathan Koch, Health Analysis, NMCPHC

Naval Medical Center Portsmouth's (NMCP) Pediatrics Department asked NMCPHC's Health Analysis Department to examine whether providers based in Hampton Roads prescribed narrow spectrum antibiotics according to national guidelines for bacterial infections and to calculate the cost of non-compliance.

The population included patients ages 18 and younger seen in Navy clinics in Hampton Roads from 2012-2014. From this snapshot, the analysis demonstrated the percentage of prescriptions that did not follow antibiotic guidelines, the associated excess costs and how compliance varied across age groups, diagnoses and clinics. Health Analysis also determined that antibiotic prescriptions peaked from December-March and macrolides constituted most of the non-compliant prescriptions.

This analysis arms the Pediatrics Department with the evidence to develop a targeted intervention program to increase compliance and establishes a baseline to evaluate the effectiveness of that program once in place.

"Through analyses like this, Heath Analysis supports Navy Medicine's quest for high reliability," said Lt. Cmdr. Scott Hurd, Department Head, Health Analysis Department. "We identified an opportunity to make good practice even better, improve patient safety and save some money in the process."

Have a similar question? Submit a project request. Our team of clinicians, epidemiologists and health analysts is here to help: <a href="mailto:usn.hampton-roads.">usn.hampton-roads.</a>
<a href="mailto:navmcpubhlthcenpors.list.nmcphc-haprojreq@mail.mil">navmcpubhlthcenpors.list.nmcphc-haprojreq@mail.mil</a>



# **EDC Shares Best Practices, Explores New Methods at EpiExchange**

By Angela Schlein, EpiData Center, NMCPHC

Representatives from the EpiData Center (EDC) recently attended the autumn meeting of the "EpiExchange," a periodic assembly of Tri-Service and Defense Health Agency (DHA) subject matter experts (SMEs) in military medical surveillance.

"The goal of the EpiExchange is to share our best practices for surveillance," said Gosia Nowak, EDC Reportable and Emerging Infections Division. "We work with many of the same data sources and in similar ways, so these meetings are a chance to exchange ideas and build good relationships. We all want to provide the best service we can with the data that we have."

The EDC coordinated the EpiExchange on behalf of the Navy and proposed the accepted topic: Data Management for Public Health Surveillance. Approximately 25 SMEs attended the event.

"Representatives share relevant work and we discuss everything as a group," said Tina Luse, EDC Behavioral and Operational Health Division. "We're able to explore ideas in a focused, detailed way and find solutions to some of the challenges we encounter every day."

EDC epidemiologists presented work on various data initiatives, including methods for removal of duplicate records, identification of invalid records, request processing and data cleaning.

"Ultimately, the group would like to standardize data use and processes where we can," said Uzo Chukwuma, EDC Hospital Associated Infections and Patient Safety Division. "Doing so would improve transparency, replicability and comparison across the services."

The EpiExchange SMEs meet three times a year at the Armed Forces Health Surveillance Branch (AFHSB) offices in Silver Spring, Maryland. Previous meeting topics have included post-traumatic stress disorder (PTSD), mental health and the use of Health Level 7 (HL7) formatted data.

To learn more about the EDC, visit <a href="http://www.med.navy.mil/sites/nmcphc/epi-data-center/Pages/default.aspx">http://www.med.navy.mil/sites/nmcphc/epi-data-center/Pages/default.aspx</a>

## NDSLs Participate in Professional Development Fair

Representatives from the Navy Drug Screening Laboratories (NDSLs) participated in a professional development fair at the annual Society of Forensic Toxicologists (SOFT) conference in Dallas, TX. The conference was held in October 2016 and was widely attended by professionals from various disciplines within the toxicology field. The professional development fair provided the NDSL representatives to educate participants on the mission of NDSL and to share various positions that may become available. Participants were able to speak to both civilians and officers from the NDSL locations in Great Lakes, IL, Jacksonville, FL and San Diego, CA. The NDSLs provide forensic, timely and legally defensible test results for Department of Defense (DOD) military members and military applicants. Potential positions range from entry level physical science technicians and chemists to more experienced chemist positions in a variety of *(cont. on page 6)* 

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departments such as initial testing, confirmation, quality assurance, quality control, data review and expert witness. While this fair was intended for individuals in the toxicology field, the laboratories have other positions such as administration, finance and information technology.



For more information regarding employment opportunities at the NDSLs:

- 1) Go to <a href="http://usajobs.gov/">http://usajobs.gov/</a>
- 2) On the main page, enter your job search criteria.
- 3) In Advanced Search, you can use the following criteria to search for job opportunities with the NDSLs:

#### Locations:

Jacksonville, FL Great Lakes Naval Training Center, IL

#### **Occupational Series:**

1320 Chemist 1311 Physical Science Technician

Under Who May Apply, select Open to the Public or Federal Employees as applicable.

#### Public Health Center Hosts Drinking Water Course

By Hugh Cox, Public Affairs, NMCPHC

The Navy and Marine Corps Public Health Center (NMCPHC) hosted a three-day preventive medicine course September 27-29, 2016, with emphasis on drinking water management and safety.

The pilot course (Preventive Medicine Authority Drinking Water) covered a myriad of drinking water-related topics ranging from drinking water regulations to water supply, treatment and distribution.

Fifteen attendees from across the Navy Medicine enterprise participated in the course as part of an overall public health strategy designed to better prepare preventive medicine professionals in the execution of Navy Medicine's mission to ensure that all Navy personnel and their families receive drinking water that meets or exceeds the United States water quality standards as required by the Chief of Naval Operations (CNO).

# 44 Navy Medicine has a key role in making sure the drinking water is safe...Navy public health personnel bring critical knowledge and expertise to the table.

The role of the attendees is to ensure that the risks associated with unsafe drinking water are prevented or reduced through proactive surveillance and timely action. In this regard, Navy Preventive Medicine professionals work side-by-side with their Navy Line counterparts, including Commander, Naval Installations Command (CNIC), Naval Facilities Command (NAVFAC) and installation public works departments worldwide.

According to Mr. Tony Carotenuto, NMCPHC Preventive Medicine staff and one of the course architects and lead instructor, "Navy Medicine has a key role in making sure the drinking water is safe. Even though CNO has designated CNIC as executive agent for drinking water quality matters for Navy shore facilities and installations worldwide, Navy public health personnel bring critical knowledge and expertise to the table," said Carotenuto.

Carotenuto went on to cite numerous examples of Navy Medicine's role. "We conduct public health surveillance of the (cont. on page 7)

#### **Upcoming NMCPHC Trainings and Conferences**



- 9 13 January 2017: <u>DOEHRS-IH Training</u>
- 24 January 2017: Tobacco Cessation Facilitator Training
- 23 27 January 2017: <u>DOEHRS-IH Training</u>
- 27 February 3 March 2017: <u>DOEHRS-IH Training</u>

(cont. from page 6)

water systems, health risk assessment and risk communication, public health assistance on the preparation of consumer confidence reports and public notification, and we also determine when drinking water systems issues warrant implementation of alternative water supplies," added Carotenuto.

"NMCPHC's role is to serve as the subject matter expert with respect to drinking water programs," said Dr. Paul Gillooly, NMCPHC Risk Communications expert and course instructor. "We're also the Navy and Marine Corps' expert in risk communication consultation and training."

NMCPHC is tasked with ensuring that Navy Medicine drinking water programs and policies are current, properly executed and properly communicated. "At the end of the day, whether it is a local food-borne illness outbreak or a safe drinking water issue, it all boils down to health," said Gillooly. "People want to know whether they have been exposed, what their risk is, how does it affect their health, their families' health, and will that exposure cause illness and disease later in life."

Lt. Cmdr. Stacy Kwak, environmental health officer for Navy Bureau of Medicine and Surgery (M44) and one of the course instructors, underscored the impact of increased public awareness regarding public health issues in the headlines. "With high profile issues such as the Zika virus and contaminated drinking water in Flint, Michigan, there is a heightened awareness in the population of public health issues with an expectation for immediate action when such issues arise," said Kwak. "Therefore the goal is to ensure that Navy Medicine public health personnel are sufficiently trained and educated on the Navy's

drinking water program's roles, responsibilities, policies on supplies, treatment, distribution and overall operations and maintenance aspects of drinking water systems."

According to Capt. Rodney Boyce, director of Public Health Services, U.S. Naval Hospital Rota, Spain, the importance of implementing a drinking water course for public health and preventive medicine professionals should not be understated. "This training is an investment for providing safe drinking water in the United States and overseas, which contributes to readiness," said Boyce.

"Every lecture has brought new information that I need to take to Japan and put into use. I wish this course was available years ago," added Lt. Daniel Crouch, environmental health officer for U.S. Naval Hospital Yokosuka, Japan. "Understanding my role, engineers' roles, and sanitary surveys, and the extensive classroom discussion of real world issues is a 'game changer' for our environmental health community."

"As an Independent Duty Corpsman going to a remote installation this course is helping me with the necessary tools and knowledge to provide proper surveillance of the drinking water program," said Petty Officer 1st Class (SW/AW) Edwin G. Dominguez, Aegis Ashore Missile Defense System, Romania.

For more information on drinking water policy and guidance, visit NMCPHC online at: <a href="http://www.med.navy.mil/sites/nmcphc/program-and-policy-support/water-sanitation-and-safety/Pages/default.aspx">http://www.med.navy.mil/sites/nmcphc/program-and-policy-support/water-sanitation-and-safety/Pages/default.aspx</a>

# Revolutionary Diagnostics for Gastrointestinal Diseases Threatening the Fleet

By Lt. Cmdr. Tupur Husain, Ph.D., Expeditionary Platforms, NMCPHC

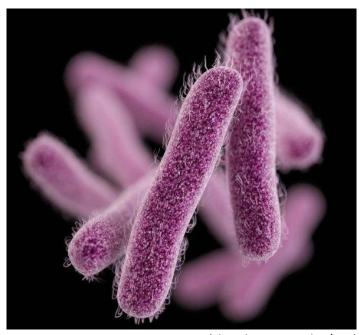
Each year, diarrheal disease causes millions of hospitalizations and deaths all over the world. The burden of disease heavily affects residents and travelers within the developing world, and those subjected to public health disasters, such as catastrophic floods.

In addition, the effect of diarrheal disease on mission readiness of United States military and government personnel stationed around the world has long been recognized as a constant threat. In 1988, 21 percent of the 2,747 evaluated crew members aboard the USS John F. Kennedy fell ill to gastrointestinal illness largely attributed to enterotoxigenic Escherichia coli (ETEC)<sup>1</sup> from independent risk factors that included the consumption of any meal ashore, specifically meals that included meats, desserts or buffets and recent history of travelers' diarrhea. Water-borne diseases are also among the list of health hazards posing major epidemiological threats in the combat zones of Iraq and Afghanistan<sup>2</sup>. Even outbreaks of Campylobacter enteritis emanating from contamination of water storage tanks in the U.S. have been documented resulting in 32 percent of 249 persons hospitalized on U.S. Army installations<sup>3</sup>.

Conducting rapid diagnosis of the causative pathogen for diarrheal disease and information on its bacterial resistance would allow tailored treatment to be started earlier, reducing both morbidity and mortality among affected individuals. Unfortunately, the classic methods of identifying bacteria – such as culturing on growth plates or using molecular diagnostic techniques, like Polymerase Chain Reaction (PCR) – have three major limitations:

- 1) May take days to weeks to process a sample.
- 2) Require repeated purchasing of expensive consumable reagents.
- 3) Rely on dependable refrigeration, which can be problematic and costly when being transported and maintained.

To overcome these obstacles, our team has the vision to engineer a small portable field device based on biophysics which we refer to as dielectrophoretic



(Photo by James Archer/CDC)

cell membrane profiling (DEPCMP) which can yield near-immediate results in bacteria identification and drug-sensitivity profile. Additionally, DEPCMP would be designed as a reusable, compact device which can be easily transported and operated in austere environments for long term application by Navy Forward Deployable Preventive Medicine Units or hospitals anywhere in the world.

#### **Validating our DEPCMP Device**

Based on the principle that every bacterial cell has a unique cell surface distinguished by the conductivity of its membranes and cell walls<sup>4</sup>, DEPCMP would be able to manipulate and sort cells migrating to specific electrically charged locations on microchips without the need for biochemical labels or other bioengineered tags, and without contact to any surfaces<sup>5</sup>. DEPCMP has been used successfully to separate and categorize cells from within heterogeneous stem cell populations<sup>6</sup>. However,

it is an untapped resource with clear promise for overcoming the current hurdles that plague quick and accurate diagnosis of diarrheal bacteria. Before our invention can go mainstream to identify diarrheal bacteria, it will need to undergo testing and a validation process at our state-of-the-art Environmental and Preventive Medicine Unit microbiology labs in Virginia, California and Hawaii. During this time, the team would:

#### Conduct preliminary testing using pure strains of diarrheagenic bacteria

Our laboratories would establish a positive control group, using previously prepared liquid suspensions of identified bacterial strains of ETEC, Campylobacter, Salmonella and Shigella. Once the dielectric properties of the cell surface are identified, each bacteria will pass through the DEPCMP microchips and gather at different electrodes within the DEPCMP device instantly. The profile of each bacterial group would be recorded and established as their cell surface signature for future identification and the construction of a DEPCMP profiling database.

#### Carry out additional testing using mixed bacterial populations and stool samples

Stool is a complex specimen that contains lots of non-pathogenic (non-harmful) bacteria potentially mixed with pathogenic (harmful) bacteria. To determine which dilution point is necessary to eliminate non-pathogenic bacteria from a stool, we will serially dilute non-diarrheal (normal) stool samples containing typical mixed non-pathogenic bacteria populations and separate the bacteria for cell collection using DEPCMP to increase our signal to noise ratio. This step is crucial in determining the limit of detection necessary to separate strains of harmful bacteria from a stool sample for rapid diagnosis.

#### Involve genetic variation and antibiotic resistance testing

A genetic variant of a bacterial species has the potential to be particularly more aggressive and lethal to patients infected with it. Similarly, antibiotic resistance is a threat to patients' health and readiness. Early identification of these two issues can drastically reduce cost and time of intervention as well as morbidity within populations.

Overtime, the bacteria's cell surface can mutate to become resistant to specific antibiotics. DEPCMP has the ability to distinguish genetic mutants in the same manner as it differentiates bacteria strains<sup>7</sup>, allowing us to record the change in the bacteria's cell membrane profile and also distinguish antibiotic resistant bacteria. Using similar methods as described earlier, various common genetic variants of the four bacteria would be characterized by DEPCMP. No expensive genotyping will be necessary!

#### New Machines for a New Century: DEPCMP Forging the Future of Diagnostics for Bacteria

Future genetic testing with extracted DNA using conventional molecular diagnostic methods will further reinforce or refute the DEPCMP bacteria profiles. As additional samples are obtained either by being sent to our units for testing or tested in the field at the site of enteric disease outbreaks, the NMCPHC DEPCMP database will evolve as a central accessible system for bacterial diagnostics.

Experimental models for extending our approach would also be developed for addressing the medical needs of patients in the developing world. These designs could be implemented towards the diagnosis of parasite pathogens in blood, tuberculosis from sputum specimens, urine samples from patients with urinary tract infections and urethroswab for the detection of gonorrhea.

For more information about the work of NMCPHC's Expeditionary Platforms department, visit <a href="http://www.med.navy.mil/sites/nmcphc/expeditionary-platforms/Pages/default.aspx">http://www.med.navy.mil/sites/nmcphc/expeditionary-platforms/Pages/default.aspx</a>

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The views expressed in this article are those of the author and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, nor the U.S. Government.

# NECE Provides Disease Vector Surveillance and Control Recommendations to Navy Region Southeast in Preparation for Hurricane Matthew

By Cmdr. Jeffrey Stancil and Lt. Matthew Montgomery, Navy Entomology Center of Excellence

As a field activity of the Navy and Marine Corps Public Health Center, the Navy Entomology Center of Excellence (NECE) has been tasked to provide direct support to Commander, Navy Region Southeast (CNRSE) and participates in the Region's Military Biological Advisory Committee (MBAC) and Emergency Management structure.

In preparation for the impact and response to Hurricane Matthew, NECE provided CNRSE with a risk assessment on the possible increase of vectors

(i.e., mosquitoes) and vector-borne disease following the storm.

Prior to Matthew's landfall in Cuba and the Bahamas, NECE worked with CNRSE to estimate the storm's potential impact on force health protection resulting from increased mosquito populations,

particularly of the *Aedes aegypti* mosquito due to concerns of Zika, dengue and other arbovirus transmission. Combining data from recent onsite assessments at Naval Station Guantanamo Bay (NSGB) and the Advanced Undersea Test and Evaluation Center (AUTEC) in the Bahamas, historic data and experience for Contiguous States (CONUS) installations and an in-depth knowledge of the *Aedes* mosquito population ecology, NECE determined that while nuisance mosquito populations would almost

definitely increase, an increased risk of disease transmission was unlikely.



(U.S. Navy photo by James Gathany)

They also concluded that while additional mosquito control operations would likely be required, the installations would already be following existing Integrated Pest Management (IPM) plans. The IPM plans, developed in coordination with installation public works, preventive medicine personnel, Naval Facilities Command and NMCPHC field activities. delineate surveillance/

action thresholds and risk mitigation strategies such as increased larval and adult control and enhanced use of personal protective measures (i.e., increased repellents) to effectively and efficiently protect service members and beneficiaries onboard Navy installations.

For more information about NECE, visit <a href="http://www.med.navy.mil/sites/nmcphc/nece/Pages/default.aspx">http://www.med.navy.mil/sites/nmcphc/nece/Pages/default.aspx</a>

# Naval Station Rota Leadership Visits Navy Environmental and Preventive Medicine Unit Seven



By Petty Officer 2nd Class (PO2) Jay Cherluck, Public Affairs, Navy Environmental and Preventive Medicine Unit Seven

Naval Station (NAVSTA) Rota Commanding Officer Capt. Michael MacNicholl and Command Master Chief (CMDCM) Michelle Brooks visited the Navy Environmental and Preventive Medicine Unit Seven (NEPMU-7), November 4, 2016.

This is the first time MacNicholl officially visited NEPMU-7 since assuming command of NAVSTA Rota in June 2016.

MacNicholl and Brooks were greeted by NEPMU-7's officer in charge, Cmdr. Karen Corson, and Senior Enlisted Leader Senior Chief Petty Officer (SCPO) William Hayden.

The visit included a command brief on NEPMU-7's mission in providing public health support to three Combatant Commands covering Africa, Europe and the Middle East, as well as a tour of the facilities and an introduction to the small but mighty staff of NEPMU-7.

"I really enjoyed the tour; I had no idea what a broad scope NEPMU-7 had and it is very impressive," said CMDCM Brooks. "I thoroughly enjoyed learning about all the 'little creatures' that you keep us safe from. It was a pleasure to meet the outstanding NEPMU-7 team."

The NEPMU-7 team set up a static display featuring various pieces of equipment that they use in the field and aboard ships.

NEMPU-7, located in Rota, Spain, provides Force Health Protection support to Navy and Marine Corps forces operating afloat and ashore within its large area of responsibility. Whether it's a request for information or a request for forces, the team's highly skilled and trained professionals are always ready.

For more information about NEMPU-7 products and services and contact information, check out the NEPMU-7 Facebook page: <a href="https://www.facebook.com/NEPMU7">https://www.facebook.com/NEPMU7</a>



NAVSTA Rota Commanding Officer Capt. Michael MacNicholl discusses NEPMU-7's mission with NEPMU-7 leadership, November 4, 2016. (Photo by PO2 Jay Cherluck)

# **NEPMU-2 Supports STEM Event for Virginia Beach Fifth-Graders**



By Amy DeLong, Ph.D., Navy Environmental and Preventive Medicine Unit Two

Staff members from Navy Environmental and Preventive Medicine Unit Two (NEPMU-2) supported the Science, Technology, Engineering and Math (STEM) outdoor laboratory, September 9, 2016.

More than 6,000 fifth-grade students from the Virginia Beach Public School System participated in the STEM event that took place at the 2016 Naval Air Station (NAS) Oceana Air Show.

Volunteers from NEPMU-2 manned several stations at the inaugural event that featured over 100 different activities to provide the students an opportunity to experience hands-on science demonstrations. Afterwards, everyone was treated to a private demonstration by the Blue Angels and other military aircraft.

Lt. Cmdr. Jenifer Scancella, a biochemist and head of NEPMU-2's Laboratory Services, and Dr. Amy DeLong, a chemist at the unit's Comprehensive Industrial Hygiene Laboratory, engaged the students with experiments to demonstrate chromatography using filter paper, the chemical properties of common household products and the cultivation of bacteria from improperly washed hands.

"There were so many engaged and interested children, absolutely enthralled in seeing bacteria up close and being able to visualize basic chemistry principles. It was an absolute joy to be a part of a child's introduction to STEM," said Lt. Cmdr. Scancella.

Lt. Cmdr. Christon Duhon, an audiologist and head of NEPMU-2's Occupational Audiology program, demonstrated how sound is measured by using a sound level meter to gauge the different aircraft performing maneuvers. "Many people are caught off guard when attending an airshow using filter paper, the chemical properties of common household products and the cultivation of bacteria from improperly washed hands.



Virginia Beach Public School students perform a chemistry experiment with NEPMU-2's Lt. Cmdr. Jenifer Scancella (left), and Dr. Amy DeLong (right), at the STEM Outdoor Laboratory at the 2016 NAS Oceana Air Show. (Photo by Lt. Cmdr. Christon Duhon)

"There were so many engaged and interested children, absolutely enthralled in seeing bacteria up close and being able to visualize basic chemistry principles. It was an absolute joy to be a part of a child's introduction to STEM," said Lt. Cmdr. Scancella.

Lt. Cmdr. Duhon demonstrated how sound is measured by using a sound level meter to gauge the different aircraft performing maneuvers. "Many people are caught off guard when attending an airshow and they learn how loud a jet aircraft can be," said Lt. Cmdr. Duhon. For this reason, the NEPMU-2 volunteers came equipped with over 6,000 hearing protection devices (HPDs) that they gave out to airshow guests.

With the outstanding success of the STEM Outdoor Laboratory event in its first year, planning for the second annual event at the 2017 NAS Oceana Air Show is already underway. The STEM program aims to cultivate future generations of scientists and to help foster careers in medicine, computer science, energy and other related fields.

For more information about NEPMU-2, visit <a href="http://www.med.navy.mil/sites/nmcphc/nepmu-2/Pages/default.aspx">http://www.med.navy.mil/sites/nmcphc/nepmu-2/Pages/default.aspx</a>

# **NEPMU-5 Remembers Attack on Pearl Harbor at the USS Midway**



By Lt. Jen Knapp, Public Affairs, Navy Environmental and Preventive Medicine Unit Five

Sailors from the Navy Environmental Preventive Medicine Unit Five (NEPMU-5) participated in a wreath remembrance ceremony aboard the USS Midway commemorating the 75th anniversary of the attack on Pearl Harbor, Hawaii on December 7, 2016.

The USS Midway was commissioned a week after the end of World War II in September 1945 and was decommissioned in 1992. The ship is currently used as a museum and is one of the most popular tourist destinations in San Diego.

First class petty officers from NEPMU-5 laid wreaths during the ceremony as part of the CPO 365 program highlighting Navy heritage and pride. The wreaths were dedicated to Pearl Harbor and the "Greatest Generation."

An invocation was given by Pastor David Plank followed by a two-bell ceremony where the names of the Pearl Harbor survivors who had passed away in the last year were read. The two-bell ceremony was performed by Chief Petty Officer (CPO) Darnelle Mason and Petty Officer First Class (PO1) Hayashi Morris of NEPMU-5.

CPO Mason gave a speech discussing a modern take on yesterday's Navy and how the attack on Pearl Harbor not only shaped the United States Navy but America as well. "I am still beaming with pride and motivation after meeting the four veterans who attended the ceremony and truly represented the Greatest Generation," said CPO Mason. "It was a really proud moment for me and not one I will forget."

"This event means so much to me because it allows me to show my support and respect for the survivors who fought for our freedoms that we have today," PO1 Byron Hewitt, NEPMU-5. "Having been a part of Operation Enduring Freedom their survival and dedication is inspirational and makes me proud to serve and fight for our country."

Andrea Compton, superintendent of Cabrillo National



PO1 Steven Stroud and PO1 John Gray of NEPMU-5 escort Pearl Harbor survivors to the wreath remembrance ceremony on board the USS Midway commemorating the December 7, 1941 attack on Pearl Harbor. (Photo by Lt. Jen Knapp)

Monument also spoke at the event.

"Military history is a major part of the Cabrillo National Monument story and we use that history to help inform our visitors about our current world," said Compton. "The commemoration of the 75th anniversary of the attack on Pearl Harbor holds a special place in our story because we have over 21 fortifications from World War I and World War II at Cabrillo National Monument."

The crew of the future USS John Finn (DDG 113) was also in attendance at the event.

"John Finn was a medal of honor recipient from World War II for machine gunning Japanese planes during the attack on Pearl Harbor, so we felt it was important to take the time to stand down and bring our crew to remember the 75th anniversary of the sacrifices made and valor displayed that day," said CPO Andrew Martzall, USS John Finn. (cont. on page 14)

#### **Providing Support Around the World**

NEPMU-6 personnel have been busy providing public health expertise and support around the world. Their recent work conducting water potability testing for future emergency water sanitization systems as well as collaborating with foreign governments to provide Humanitarian Assistance & Disaster Response training shows how much Navy public health personnel strive to improve the public health of populations around the globe, every day. Take a look at their impact:





CPO Dameon Webb of NEPMU-6 participated in ASEAN Medical HEX-16 as the U.S. Navy Public Health Representative in an international public health working group. CPO Webb collaborated with public health subject matter experts from the U.S., Malaysia, Philippines and Royal Thai Army in a command post exercise scenario that involved a refugee camp setup for a humanitarian assistance evacuation mission in Thailand. The group's overall goal was to evaluate and review Royal Thai Army humanitarian response procedures to ensure continued development by neighboring nations. (Photo by NEPMU-6 Personnel)



CPO Van Rowin Manlambus of NEPMU-6 provided outstanding support to CRIMSON VIPER 2016 by acting as the subject matter expert conducting potability testing for future emergency and mobile water purification and filtration systems. CRIMSON VIPER is a technology experimentation venue that promotes science and technology collaboration and is a means of obtaining operational feedback for technology development. The NAVAIR Technology Experimentation Center (TEC) coordinated the overall event in support of PACOM J85 while conducting individual technology experiments. (Photo by NEPMU-6 Personnel)



Cmdr. Matthew Weiner, NEPMU-6 Microbiologist, led a six passenger U.S. DOD delegation in the execution of a high-level, trilateral exercise between U.S., Taiwan and the Solomon Islands. The exercise cross-trained more than 80 civilian and military personnel in Humanitarian Assistance/Disaster Response (HA/DR) to infectious disease outbreaks and involved the Solomon Islands Ministry of Health and the Director of Civil Aviation. U.S. Air Force Major Charbonneau (Public Health Officer-43H) was a participant along with NEPMU-5 personnel Lt. States (PMO), Lt. Viano (EHO) and PO2 Tapia (PMT) along with CPO Reyes (Lab Tech) of NEPMU-6. (Photo by NEPMU-6 Personnel)

(cont. from page 13)

"It was great to see and a proud moment that NEPMU-5 Sailors were able to support in remembering such a tragic event of our Naval history that affected many lives," said Senior Chief Petty Officer Leonardo Carbonel, NEPMU-5 senior enlisted leader. "I believe the reward that these Sailors received for helping out is the fact they were able to talk and interact to the brave Sailors that stood face

to face with enemy and defended our great nation during the Pearl Harbor attack. I believe it brought such an overwhelming pride to all Sailors that were there."

For more information on NEPMU-5, go to www.nepmu5.med.navy.mil.

#### In Case You Missed It...

#### Public Health Center Launches New Tobacco Awareness Videos

By Hugh Cox, Public Affairs, NMCPHC

NMCPHC announced the release of four new tobacco awareness public service announcements (PSAs) November 2, 2016 in support of Tobacco-Free Living Month. The PSAs were developed by NMCPHC and the Navy Bureau of Medicine and Surgery (BUMED) Visual Information Directorate to promote tobacco-free living for Sailors and Marines.

Read the full story here: <a href="http://www.navy.mil/submit/display.asp?story\_id=97504">http://www.navy.mil/submit/display.asp?story\_id=97504</a>

#### NEPMU San Diego Partners with Elementary School to Provide Public Health Guidance to Local Community

By Lt. Jen Knapp, Public Affairs, Navy Environmental and Preventive Medicine Unit Five

Navy Environmental and Preventive Medicine Unit Five (NEPMU-5) San Diego teamed up with Olympic View Elementary School to support its annual Red Ribbon Week and Fall Festival, October 21, 2016.

Read the full story here: <a href="http://www.navy.mil/submit/display.asp?story\_id=97302">http://www.navy.mil/submit/display.asp?story\_id=97302</a>

#### NEPMU-5 Hosts Preventive Medicine Health Fair at Naval Base San Diego

By Lt. Jen Knapp, Public Affairs, Navy Environmental and Preventive Medicine Unit Five

Navy Environmental and Preventive Medicine Unit Five (NEPMU-5) hosted its third annual health fair in collaboration with local Navy and civilian health partners October 28, 2016. The event was held at NEPMU-5 and participants represented civilians and Sailors from local commands.

Read the full story here: <a href="http://www.navy.mil/submit/display.asp?story">http://www.navy.mil/submit/display.asp?story</a> id=97506

### Navy Public Health Team Returns Home after Preventive Medicine Mission across the South Pacific

By Lt. Jen Knapp, Public Affairs, Navy Environmental and Preventive Medicine Unit Five

The Navy Environmental Preventive Medicine Unit Five (NEPMU-5) Forward Deployable Preventive Medicine Unit (FDPMU) Team Four returned home to San Diego from its deployment on Pacific Partnership 2016 (PP16), September 30, 2016. The team spent five months providing preventive medicine training and support to Timor-Leste, the Philippines, Vietnam, Malaysia and Indonesia.

Read the full story here: <a href="http://www.navy.mil/submit/display.asp?story\_id=96939">http://www.navy.mil/submit/display.asp?story\_id=96939</a>

#### Navy Preventive Medicine Unit Represents Navy Public Health at San Diego Fleet Week

By Lt. Jen Knapp, Public Affairs, Navy Environmental and Preventive Medicine Unit Five

The Navy Environmental and Preventive Medicine Unit Five (NEPMU-5) participated in the first Sea and Air Parade event in eight years during San Diego Fleet Week, September 10, 2016. The event featured U.S. Navy cruisers, amphibious ships, destroyers, frigates, submarines, a demonstration of SEAL capabilities, Coast Guard search and rescue, a fly-over of contemporary Navy and World War II aircraft, along with ship tours; a Science, Technology, Engineering, and Mathematics (STEM) fair; and static displays.

Read the full story here: <a href="http://www.navy.mil/submit/display.asp?story\_id=96793">http://www.navy.mil/submit/display.asp?story\_id=96793</a>

#### **Looking Forward:** NMCPHC in 2017

After taking a break for the holiday months, the Disease Reporting System Internet (DRSi) 2017 webinar training schedule is coming soon!

Get excited for more presenters highlighting disease surveillance information, requirements, activities and best practices on a variety of topics including disease reporting, water surveillance, disease vector surveillance and infectious disease control in the new year.

To stay updated with the webinar series or to view presentations from past webinars, visit the DRSi training series webpage here: http://www.med.navy.mil/sites/nmcphc/program-and-policysupport/drsi/monthly-disease-surveillance-training/Pages/default. aspx

#### January is Healthy Weight month!

Our Health Promotion and Wellness (HPW) department has a toolbox full of information and resources that can help you ensure the health and mission readiness of Sailors, Marines, beneficiaries and DOD civilians. Explore the health observance and topic of interest for each month, choose the materials you would like to use and check back often for new resources!

Visit the HPW toolbox here: http://www.med.navy.mil/sites/ nmcphc/health-promotion/Pages/hp-toolbox-january.aspx

Pro Tip: Receive daily HPW updates by following us on Facebook, Twitter and Pinterest!



(Photo by PO1 Theron J. Godbold)

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