U.S. Public Health Service Combined Category

Newsletter

U.S. PUBLIC HEALTH SERVICE

Fall/Winter 2016

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PAC's Chair Corner

By CDR Mitchel K. Holliday

As we all know, one of the core values of the Commissioned Corps is Service. This is defined as the demonstration of a commitment to public health through compassionate actions and stewardship of time, resources, and talents. As we come to the end of the calendar year, as well as the operational year for many of the Professional Advisory Committees (PACs) and Professional Advisory Groups PAGs), I want to thank all of you that have demonstrated your commitment to service and stewardship of your time, resources and talents in support of the various PACs and PAGs. These committees and groups are voluntary and without the commitment to service from our officers would not be able to function and support the Office of the Surgeon General, Chief Professional Officers, and officers within each of the categories.

I want to encourage those of you that have not been involved with these groups in the past to please considering doing so. Utilize your time, resources, and talents to support your fellow Corps Officers and the Corps Family as a whole.

If you are interested in either becoming more engaged within your PAC or would simply like to have your voice heard on a matter you would potentially like to have addressed, contact information for your PAC Chair is available on CCMIS here: http://dcp.psc.gov/ccmis/PDF_docs/PAC_Chair_contacts.pdf

Social Media and Networking: the EHOPAC Taking It to the Next Level

Contributed by LCDR Jessica Otto and CDR Luis Rodriguez, Environmental Health Officer PAC

The Meaning of life is to find your gift.
The Purpose of life is to give it away.
-William Shakespeare

Social media is hot these days. We follow and interact with news, politicians, artists, groups, and friends to name a few. It is the new normal for many, resulting in a critical way to communicate. If you don't know by now, even our Surgeon General Vivek Murthy is taking his role as "America's Doctor" to new heights by being very active on social media. This media revolution has led many to play catch up with the trend, while others are stepping up and leading the pack. This article is our way to share with you some of what the Environmental Health Officer Professional Advisory Committee (EHOPAC) has been doing to lead and contribute to the dissemination of important information in a remarkable fashion.

Environmental Health Officers (EHOs) are a diverse group of professionals with many specialties, serving across the nation and abroad. Communication with a group this wide and varied can be a challenge. Many EHOs serve in remote locations or in places where they may be the only officer. In an effort to tighten our network and provide opportunities for increased communication, best practice sharing, recruitment, and marketing, the EHOPAC set out on a multi-year project to develop, utilize, and maintain a social media presence.

Social media and social networking are phrases that we use a lot in modern times, but what is exactly do they mean? Short and simple, let's look at each word individually:

The "social" part: refers to interacting with other people by sharing information.

The "media" part: refers to an instrument of communication, like the internet.

The "network" part: refers to who your audience is and the relationships you have with them.

Source: http://blackandbrownnews.com/wp-content/uploads/2012/04/social-image2.jpg

This effort includes the use of several platforms including a closed Facebook group (EHOs and retirees only), an open Facebook page (to push information to the public), and a LinkedIn group (to engage across the profession). Social media is an important tool to keep officers engaged and connected, which can help with retention, job search, promotion, and other career progression information. The Social Media Team within the Communications Working Group of the EHOPAC wanted to share some information about our experience in the development and utilization of social media.

In 2015 the Communications Working Group leadership set out to research the requirements, strategies, and limitations of social media in the context of the Department of Health and Human Services. This team produced the foundation to develop both Standard Operating Procedures (SOPs) and a Social Media Policy. These governing documents were shared with the Professional Advisory Committee Chair's group, the Junior Officer Advisory Group, and other groups like some COA branches to help others in their endeavors to utilize social media. In 2016, these documents were finalized and subsequent job aids are being developed.

The more we do, the more we see that can be done, and we are up to the challenge

A big part of social media is keeping the message fresh, timely, and relevant. This is accomplished through an array of posts (event invitations, photos, re-posts of relevant news feeds from government agencies, etc.). The team is utilizing a phased approach: 1) push-posts: pushing out information to engage the audience and gauge interest; 2) two-way posts: things like event invitations, polls, and topics of discussion to elicit feedback; and 3) strategic/timed posting: a set plan to engage the PAC leadership to send timely posts, by subcommittee, as well as posts corresponding with things like promotion timelines, environmental health awareness month, etc. The first and second phase are ongoing, to include a PAC-wide communications needs survey that was deployed in September to gather feedback. The third phase should be rolled out in 2017 at which point feedback will be actively incorporated in the hopes of an ever improving social media experience.

After numerous posts, views, likes, shares, and new connections we can happily say that our effort is paying big time. More EHOs are involved in our media posts, more public health practitioners and interested parties are following us, and we get more questions about how to become an EHO in the U.S. Public Health Service! This is not leading by any way a sense that we have accomplished all of our goals. The more we do, the more we see that can be done, and we are up to the challenge. We are striving to make us popular and overall helpful to our followers.

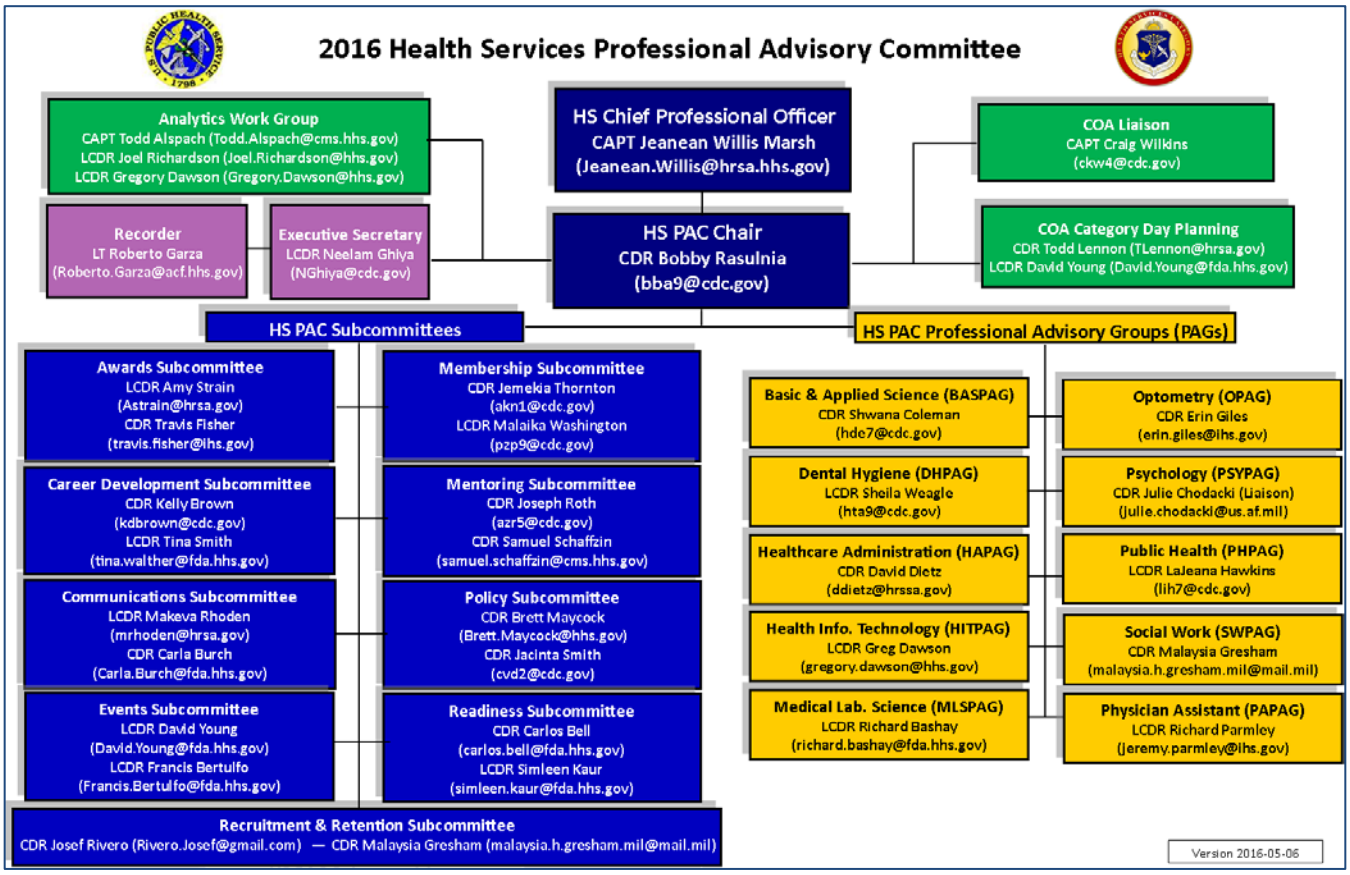
None of this would be possible without the structure of the policy and SOP, the willingness of a focused group of motivated officers, and our outstanding leadership. An on-duty officer serves for 1 week at a time, on a five week rotation, to maintain the feeds and collect data for improvement. Their selfless service has led to the small successes we have enjoyed as a PAC so far. With continued improvement we believe our goals of tightening our network, and providing opportunities for increased communication and best practice sharing, and recruitment and marketing will be accomplished. The prospect of cross-Corps collaboration on social media presence and messaging is also an area we have to look forward to in the future.

Health Services Officer Professional Advisory Committee

The Health Services Category is on the move!

Contributed by CAPT Jeanean Willis Marsh, CPO Health Services PAC

At over 1300 strong, our multidisciplinary organization has a new look and feel! We recently released our new tag line, *Multidisciplinary in Approach, Connected by Service, Advancing Public Health,* which embodies the character and esprit de corps of our Category. This effort is a key component of an even larger initiative to re-align and establish an action plan that will place the Category in a leading position to assist the commissioned corps as we continue to respond to increasing public health demands and make more evident the value our diverse membership brings to the field of public health.



New HS Category Organizational Chart, 2016

The underpinnings of the plan are data, communication, and leadership. In support, we have launched several key initiatives:

- ***Analytic Advisory Workgroup*** responsible for collecting and analyzing key data to guide our strategic planning, tell our story, and support our officers as they progress in their careers
- ***Candidate Application Processing Team*** that manages the application process for potential officers
- ***Senior Officer Consortium*** designed to increase senior officer engagement
- **The first *Category Historian*** to document the rich history of the HS Category
- ***Career Progression and Promotion Guidance, CP$_2$G*,** a comprehensive compendium of resources to assist officers in managing their careers and promotion preparation

- ***Technical Readiness Subcommittees*** charged with ensuring our officers maintain the discipline-specific skills needed to successfully deploy
- ***Organizational Mapping*** from the category's Professional Advisory Groups to the Category subcommittees for the purposes developing programs and initiatives that support our officers in every discipline

In addition to our action plan, we are focusing on the life cycle of an officer beginning with career progression and development and are increasing our engagement and collaboration with the Commissioned Corps agency liaisons and our sister categories. We would like to extend a special thanks to the Pharmacy and Nurse Categories for their assistance as we, for the first time, managed the review process for potential applicants and two divisions in DCCPR, Systems Integration and Officer Support for their willingness to partner and provide invaluable data.

To receive updates on our programs and initiatives we invite you to join our list serve at HS-L@LIST.NIH.GOV.

Developing an Innovative, Data-Driven Model to Support HS Officer Career Progression: A Successful Collaboration between the HS Category and DCCPR

Contributed by CDR Bobby Rasulnia, LCDR Joel Richardson, Health Services PAC

On October 11, 2016, the Health Services Professional Advisory Committee (HS PAC) is releasing the 2016 Health Services Category Career Progression Profile Report and the 2010-2016 Trend Analysis Report (formerly referred to as the HSO Promoted Officer Profile Report). These reports highlight characteristics of officers who were successful in advancing their career in the Commissioned Corps as well as and provide a roadmap for planning career progression resources for officers in the category.

Data to support these reports are collected on an annual basis after promotion results have been released to the Corps. The data are self-reported by HS officers who were advanced to the next rank with an average 85% response rate on an annual basis. To increase reliability of the career progression data, the HS PAC conducted a feasibility study to determine if the data could be accessed directly from Commissioned Corps Headquarters databases since more than half of the data points of interest reside within their database systems. The feasibility assessment was conducted in collaboration with the Division of Commissioned Corps Personnel and Readiness (DCCPR) and the Division of Systems Integration (DSI) to identify technical, privacy, and policy-related issues related to future implementation of such a program. A series of meetings have taken place throughout 2016 to refine and develop consensus and access to the data. The result has been an agreed upon framework for access to and use of de-identified data between DCCPR, DSI, and HS PAC. The dataset will include over 30 variables that can support developing career progression resources and services for HS officers.

Table 1.
Data Points of Interest for HSO Promotion Data Project

Data Points of Interest	Location/Owner of Data Point
Officer Full Name **	CCHQ/DSI database
USPHS Serial Number (SERNO) **	CCHQ/DSI database
USPHS Direct Access Employee Identification Number **	CCHQ/DSI database

Selection or Non-selection for Promotion during Promotion Year **	Not currently in any known database, however, a list of promotees and non-promotees is e-mailed from DCCPR to HSO CPO's office
Current Temporary Grade	CCHQ/DSI database
Current Permanent Grade	CCHQ/DSI database
Recent Overall COER Scores	CCHQ/DSI database
Retirement Credit Date	CCHQ/DSI database
Latest Call to Active Duty Date	CCHQ/DSI database
Billet Grade	CCHQ/DSI database
USPHS Transformation Pillar Associated with Billet	Not currently in any known database
Supervisory Responsibility	Not currently in any known database
Uniformed Service Decorations and Awards	CCHQ/DSI database
Level of Commissioning Degree	CCHQ/DSI database
Additional Post-Commissioning Degrees Obtained	Not currently in any known database
Deployment History	CCHQ/DCCPR (RedDOG) database
Collateral Duties	Not currently in any known database
Involvement in PAC/PAG	Currently in spreadsheet format, maintained by HS PAC
Involvement in Uniformed Services Organizations (COA, MOAA, et al)	Not currently in any known database
Participation in Formal HSO Mentoring Process	Currently in database/spreadsheet format, maintained by HS-PAC
Volunteerism/Community Outreach	Not currently in any known database

The initiative has the potential to become a model for examining officer career progression and delivery of career support services to officers throughout the Commissioned Corps. Starting October 11, you can access the 2016 reports on the HS PAC website at: https://dcp.psc.gov/osg/hso/default.aspx. For more information on the feasibility study and HS Category analytic activities, please contact CDR Bobby Rasulnia, 2016 HS PAC Chair, at bba9@cdc.gov.

Key Changes in the Revised Annual Physical Fitness Test (APFT)

Contributed by CDR Kenda Jefferson and LT Marie Manteuffel
Reviewed/Edited by CDR William Pierce and CDR Timothy Murray

There are four overall components to the revised APFT that went into effect 01 JAN 2016: 1) Cardiorespiratory endurance, 2) Upper body endurance, 3) Core endurance and 4) Flexibility. The revised APFT includes three new exercise options to include elliptical, stationary bike, and plank as well as a new flexibility component called the seated toe touch. Officers must achieve a satisfactory or greater level in each of the first three components listed above. The flexibility component is scored as either satisfactory or unsatisfactory. More age bands at 5 year increments have been established for scoring, as well as more options for observing and verifying APFT results. Please note that only approved elliptical machines and stationary bikes can be used, and the approved models, as well as more detail on all of the exercises, male and female standards, and scoring, is listed in the POM released 14 May 2015, and available at http://dcp.psc.gov/CCMIS/ccis/documents/pom15_004.pdf.

The final APFT score is based on the average score from the cardiorespiratory, upper body and core endurance components. An unsatisfactory flexibility test (i.e., the officer was unable to touch their toes after up to three attempts) drops the overall score by one level.

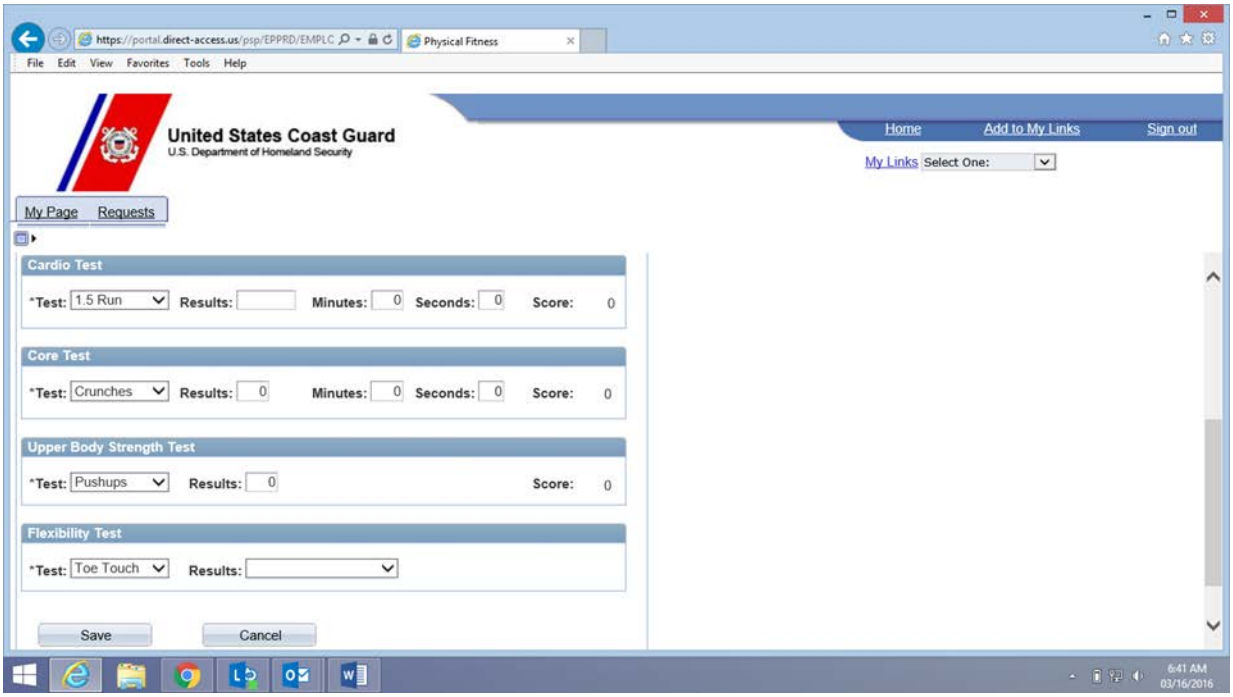
Overall APFT levels and point values:

Maximum = 100 points
Outstanding = 90 to 99 points
Excellent = 75 to 89 points
Good = 60 to 74 points
Satisfactory = 45 to 59 points
Failure = under 45 points

How to score your APFT:

Component	Example 1	Example 2	Example 3
Cardiorespiratory Endurance	Run: MAXIMUM (100 pts)	Elliptical: OUTSTANDING (90 pts)	Stationary bike: SATISFACTORY (45 pt)
Upper body Endurance	Push-ups: GOOD (60 pts)	Push-ups: GOOD (60 pts)	Push-ups: SATISFACTORY (45 pts)
Core Endurance	Plank: EXCELLENT (75 pts)	Side bridge: GOOD (60 pts)	Sit-ups: SATISFACTORY (45 pts)
Flexibility	Seated toe touch: SATISFACTORY	Seated toe touch: UNSATISFACTORY	Seated toe touch: UNSATISFACTORY
Calculation	100 + 60 + 75 = 235 235 ÷ 3 = 78 pts	90 + 60 + 60 = 210 210 ÷ 3 = 70 pts	45 + 45 + 45 = 135 135 ÷ 3 = 45 pts
Overall Score	EXCELLENT	SATISFACTORY	FAILURE
NOTES		The score averages out to GOOD, but the overall score is one level lower due to the unsatisfactory score on the seated toe touch	The score averages to SATISFACTORY, but the overall score is one level lower due to the unsatisfactory score on the seated toe touch

APFT results for each of the four test components are entered into Direct Access under Physical Fitness. Officers should maintain hard copy documentation of their test result sheet.



Other helpful information can be found at:
Overview of Revised APFT:
http://dcp.psc.gov/ccmis/RedDOG/REDDOG_APFT_overview_m.aspx
APFT Procedures and Instructions:
http://dcp.psc.gov/CCMIS/PDF_docs/PHS%20APFT%20Procedures%20&%20Instructions.pdf
FAQs:
http://dcp.psc.gov/CCMIS/RedDOG/REDDOG_APFT_frequently_asked_questions_m.aspx

The Surgeon General Meets With Scouts To Discuss Medication Safety

Contributed by LCDR Ben Bishop
Reviewed/Edited by LCDR Jason Kinyon

It may be a little known secret that each year, the Boy Scouts of America (BSA) brings to Washington, D.C. a delegation of 12 to 15 outstanding youth and adult volunteers representing more than 2.7 million Scouts and one million volunteers. This year marked the 100th anniversary of the 1916 Congressional Act authorizing Scouting's annual Report to the Nation. The delegation meets with all three branches of government including the President, Supreme Court, members of Congress; and other federal leaders.

This year, the BSA developed a special patch called the SCOUTStrong Be MedWise Award. The award, developed in collaboration with the National Council on Patient Information and Education, may be awarded to any American youth who completes the program which teaches about the importance of responsibly using medicine. Learning about the safe and appropriate use of medicine reinforces their commitment to healthy living. The curriculum and award support the National Prevention Strategy, particularly the priority of preventing drug abuse which is part of the Strategic Direction for Health and Safe Community Environments.

In recognition of their efforts, Assistant Surgeon General and Chief Pharmacist RADM Pamela Schweitzer set up a meeting between the Scouts and Surgeon General VADM Vivek Murthy. RADM Schweitzer enjoys a long history with Scouting and wanted these Scouts to be able to share their accomplishments with the Surgeon General, as well as report to him about their work supporting medication safety. CAPT Mike Long, CDR Chris Jones, CDR Diem-Kieu Ngo, and LCDR Ben Bishop were honored to represent RADM Schweitzer at the event. Significantly, the pharmacy category includes over 60 former Scouts and current adult volunteers, 37of which are Eagle Scouts.

The meeting was held at HHS Headquarters on March 1st, 2016, slightly later than scheduled due to the Scouting delegation being delayed by a longer than expected meeting with the Commander in Chief! When they arrived, they presented a commemorative MedWise award and patch to the Surgeon General, who discussed its merits with the Scouts and talked with them about principles of healthy living. VADM Murthy mentioned that he had been a Cub Scout as well. He engaged the youth, taught and inspired them, and made them laugh. It was obvious that they were excited to be there and were very impressed by VADM Murthy. It would not be surprising at all to see some of these Scouts as future Commissioned Corps officers and even as pharmacists!

Boy Scouts of America Report to the Nation Delegation with VADM Vivek Murthy

Boy Scouts of America Report to the Nation Delegation, LCDR Ben Bishop (front), VADM Vivek Murthy

Nutrition While on Deployment

Contributed by LT Doreeen Gubbay, CDR Jennifer Myles, and LCDR Margaret Di Gennaro

Even for those who routinely follow a healthy diet, eating appropriately while on deployment can be a challenge. In general, the same dietary guidelines we aim to follow in our daily lives apply during periods of deployment. However, with food options beyond our control, following these guidelines can be more difficult. Furthermore, there are special considerations related to diet when working in the field.

General Healthy Diet

The goal on deployment should be to follow a well-balanced, nutritious diet as closely as possible. According to the 2015-2020 Dietary Guidelines for Americans (DGA), a healthy eating pattern includes consumption of the following on a weekly basis[1]:

1) A variety of vegetables from each subgroup: dark green vegetables, orange and red vegetables, legumes, starchy vegetables, and others
2) A variety of fruits with an emphasis on whole fruits
3) Grains, with at least half being whole grains
4) Lowfat and fat-free dairy or soy milk selections
5) A variety of protein sources: seafood, meats, poultry, eggs, nuts, seeds, and soy products
6) Oils rich in monounsaturated and polyunsaturated fats including olive, canola, peanut, sunflower, and safflower oils

It is best to limit:

1) Foods that are high in saturated or *trans* fats, such as cookies, pizza, burgers, fried foods, buttered microwave popcorn, frozen pizza, margarine, and coffee creamers
2) Added sugars from beverages, snacks and sweets
3) High-sodium foods found in commercially processed/prepared mixed dishes
4) Energy drinks with >400 mg of caffeine per serving [1, 2]

Often during deployment, food options are limited and available food may not be in line with the DGA. However, there are several behaviors that are within our control:

1) While limiting saturated/*trans* fats or sodium may not be feasible, focus on including nutrient dense foods, like fruits, vegetables, and dairy when available
2) Bring shelf-stable, nutritious snacks from home
3) If afforded the opportunity to eat at a facility with choices, be sure to make healthy food selections at those times

Special Considerations: Eating Regularly

Eating snacks between regular meals is important to help maximize mental and physical acumen. Short-term lows in blood glucose can adversely affect attention, memory, and learning[3]. Therefore, maintaining adequate blood sugar levels through eating regular meals and snacks is important for optimizing cognitive function. The right snack choices can help increase energy and alertness without promoting weight gain.[3,4]

Because snacks might not always be available, it is a good idea to bring some from home. Some "bring your own" ideas include[4]:

- Pureed vegetable pouches
- Canned/boxed low sodium soups
- Nut butters/nuts
- Instant oatmeal packs

- Dried fruit (with no added sugars)
- Powdered drink mixes
- Shelf-stable hummus packets
- Tunafish snack packs
- Trail mix
- MRE's (Meals Ready to Eat)
- Canteen/Camelback or bottled water

Special Considerations: Fluid and Electrolyte Balance

Hydration requirements in a temperate climate are generally 2.5 liters/day.[5] Contributors to dehydration include exercising for more than 60 minutes, working in a hot, cold, or high-altitude setting or drinking alcohol or caffeine excessively.[6] Signs and symptoms of dehydration include thirst, dry mouth, reduced urine output, impaired physical performance, headache, malaise, difficulty concentrating, and sleepiness.[6] To put this into context, a level of dehydration that results in a loss of 2.5% of body weight will adversely impact decision-making, concentration, and up to a 35% loss of physical performance ability.[6] Prior to physical activity, drink 12-20 fl oz fluid and make sure that urine is clear or light yellow in color (unless taking B vitamins or medications that alter urine color).[6] During the activity, drink 16-20 fl oz every 20-30 minutes.[6] Do not wait to feel thirsty to drink.[6] After the activity, replace each pound of weight lost with 20-24 fl oz fluid.[6]

When hydrating to addresses losses from sweat, it is important to replenish sodium to help recover hydration status and to prevent hyponatremia, which can be a dangerous condition.[5,6] Sodium can be in the form of salty foods or fluid replacement beverages. If participating in rigorous physical activity longer than one hour, then carbohydrate should be consumed as well.[6] It should be noted that beverages containing more than 19 grams of carbohydrate per 8 fl oz may cause gastric distress and be poorly absorbed when consumed before or during physical activity.[6]

Extreme Environments

- **Warm or Hot Environment**

  Fluid and electrolyte balance is a primary concern in hot environments because these are lost through sweating. The best way to maintain electrolyte balance over prolonged exposure to heat is to drink carbohydrate-electrolyte replacement beverages and to eat food with a high water and potassium content (e.g. oranges, peaches, pineapples, watermelon, apples, strawberries, tomatoes, broccoli, cauliflower, carrots).[7] A carbohydrate content of 12-17grams/8 fl oz and a sodium content of 110-165 milligrams of sodium/8 fl oz is recommended.[7] Most fluid replacement beverages contain enough sodium to prevent serious hyponatremia. Fluid replacement beverages should contain no more than 165 milligrams of sodium, 46 milligrams of potassium, and 19 grams of carbohydrates per 8 fl oz.[7] Consumption of 16-24 fl oz every 30 minutes is an appropriate goal, not to exceed 53 fl oz/hour as this is the maximum that can be absorbed.[7] Scheduled drinking is important because the thirst stimulus is not adequate for fluid repletion.[7] Continued fluid repletion during rest is also important.[7]

  When living/working in temperatures ranging from 86 to 104° F, there may be an increase in energy needs unless compensatory decreases in activity level are made.[7] Be mindful of appetite-suppressing effects of heat when trying to meet increased energy needs.[7]

- **Cold Environment**

  Primary concerns in cold environments are hydration status, energy balance, and carbohydrate intake.[7] Diuresis is an early physiological response to cold.[7] Intake of 8-24 fl oz fluid every 30 minutes is important for maintaining fluid balance.[7] A carbohydrate-electrolyte beverage, preferably with 12-17grams of carbohydrate/8 fl oz, has been shown to improve physical performance in cold environments.[7] A high carbohydrate diet may best support metabolic heat production when working in cold weather.[7]

Energy requirements should be unaltered in persons who are adequately clothed and protected from the environment, but may be increased significantly with shivering, exertion related to wearing heavy clothing or traversing snow or ice.[7]

Special Considerations: Food Safety

The risk of getting foodborne illnesses is higher in developing countries or disaster areas. To help decrease risk stay clear of[8]:

- Raw or undercooked meat and poultry
- Ground beef
- Raw or undercooked eggs
- Unpasteurized milk or fresh squeezed fruit juice
- Raw shellfish
- Raw fruits and vegetables, including salads
- Alfalfa and bean sprouts
- Perishable foods that have been at room temperature for more than 4 hours
- Untreated water, including ice. Avoid even small amounts of untreated water for brushing teeth or rinsing your mouth. Water can be purified using iodine tablets, chlorine tablets, or by bringing water to a vigorous boil. Sealed bottled water may also be used.

As USPHS Commissioned Corps Officers, we must strive to optimize our nutrition during deployment. There will likely be barriers to consuming an ideal diet, but be sure to make healthy food choices when possible. Bring healthy snacks from home, eat regularly, and be mindful of hydration status in order to optimize mental and physical performance and be a productive member of the deployment team.

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Expedition Medicine for the USPHS

Contributed by LCDR Keren Hilger

The scope of those who enter the backcountry is growing….. No longer is it only explorers, scientists, climbers, or military expeditioners. Now it includes corporations searching for natural resources or commercial organizations on wilderness excursions. Although the common layperson may be able to get to the backcountry within hours, they may not know the health risks or recognize that they are unprepared until they get there. As a result, many of these expeditions now include medical professionals.

How is this relevant to a USPHS officer? Well, for one thing, you might be someone like me who enjoys the outdoors. Just by having a medical background, you might become the de facto medical provider on your own personal trip. Or maybe you are working at a rural site where you need to stabilize a patient until they reach definitive care. Or better yet, you may find yourself deployed in a remote or austere environment, and you are now on an "expedition" as the medical provider.

Whatever the scenario, you had better be prepared!!! Here are a few key points….

1. Make sure YOU are ready.
    a. Your own physical health — Did you get your medical and dental exams? Are you physically fit for the mission? Start a graduated exercise program at least 2 months prior to departure.
    b. Your own medical training — Do you know what you need to know for where you are going and what you will be doing? If not, get trained ahead of time.
2. Know your team.
    a. Medical screening questionnaire — Prior to departure, have everyone on the expedition, including participants and support staff, fill out a screening questionnaire.
    b. Interview — Make sure you ask if there are any changes to medicines or conditions; learn if the participants have any restrictions; and assess how ready each participant is for the activities in store.
    c. Work-up — Ensure that each participant gets a physical exam, including a dental exam, prior to departure and that any issues have been addressed. For instance, with a history of coronary disease, the participant may need to complete a modified Bruce Protocol and bring a copy of his/her EKG.
    d. Medications — Know the participants' medications and the possible side effects on physiology. For instance, if someone is on a diuretic, it will cause volume contraction, leading to dehydration, impaired heat transfer to skin and possibly hypokalemia.
    e. Providers — Have an idea of the expertise that your team brings to the table. Do you have someone trained in wilderness first aid or emergency medicine or who has experience with barotraumas or tropical diseases? Will you have access to consultants via telemedicine or phone?
3. Know what to expect.
    a. The location — Where are you going? Are there endemic diseases? Is the water safe to drink? Are there security threats? What immunizations does your team need before you go?
    b. The problems to expect — Most common problems include gastrointestinal, dermatologic (dermatitis, sunburn), ophthalmologic, dental, respiratory, orthopedic (fractures, MVA), environmental (heat stroke, hypothermia, dehydration, altitude illness), and allergic reactions as well as minor soft tissue trauma.
4. Plan your trip.
    a. Evacuation — Know the closest medical facilities, modes of evacuation, distances to evacuation sites, and weather and geographical barriers to safe transport.
    b. Communication — Be aware of how to reach out for help; a reliable and efficient line of communication is critical for re-supply and evacuations. Will it be phone, satellite, or electronic?

c. Resources — Know where you can learn more – the US State Department travel warnings for citizens (https://travel.state.gov/content/passports/en/alertswarnings.html) and CDC's The Yellow Book (http://wwwnc.cdc.gov/travel/page/yellowbook-home-2014/) are good resources.
d. Hygiene — Make a plan for how to set up the camp (if not in structures) to keep kitchen separate from bathroom area. How will everyone disinfect water?
e. Logistics — Know the details. What is in a cache? How will you store medications (e.g. do you need a refrigerator)? How long will it take to obtain resupply items? Ensure the equipment you bring is functional and appropriate and keep necessary repair equipment with you.
f. Medical supplies — Consider shelf life, amount of medications needed, and multiple-uses for medication choices. Make sure you have specialty equipment for your projected activities (e.g. gamov bag for high altitude, traction splint for high-risk activities, or mosquito netting for areas in with mosquito-borne diseases).

5. Brief your team.
   a. Team involvement — Everyone should be self-sufficient for emergent medical care (e.g. epi pen, pain meds, tourniquet, etc.) and have knowledge of basic first aid. It is helpful to also have a personal stash of gear for emergency situations — what climbers refer to as "the 10 essentials" (this could include a map, compass, sunglasses and sunscreen, extra clothing, headlamp/flashlight, first-aid supplies, whistle, fire starter, emergency blanket, knife, or others).
   b. Team Contact Info — Everyone should have emergency contact numbers and be familiar with the general evacuation plan.

Expedition Medicine can be an exciting opportunity for a medical professional. Keep in mind: Be prepared; know your team; know what to expect; and have fun!!!

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LCDR Keren Hilger

Contributed by LCDR Maria Said

LCDR Keren Hilger, a USPHS physician at the Alaska Native Medical Center, first got interested in outdoor expeditions and mountaineering at the University of Washington. After graduating with a master's degree in bioengineering, she took a few years off to work as an outdoor educator for Colorado Outward Bound and the Boojum Institute for Experiential Education, where she led 1–3 week-long trips in the mountains and desert. She then went to work for the FDA as a Consumer Safety Officer and was commissioned into the USPHS in the Engineer category. A few years into her commission, she decided to pursue a medical degree at Uniformed Services University of the Health Sciences (USUHS), where she took part in Operation Bushmaster, a one-week field medicine course that simulates an austere environment with a mass casualty event.

LCDR Hilger went on to an Emergency Medicine (EM) residency at the Naval Medical Center San Diego (NMCSD), where she created the first wilderness medicine adventure race ("WildMed") and helped develop a new wilderness medicine curriculum. After residency, LCDR took a position as an EM physician at the Indian Health Service's (IHS) Gallup Indian Medical Center, where she found that her wilderness experience helped when providing care in a rural hospital. Recently, she moved to IHS in Alaska, where she plans to spend more time in the outdoors. As a PHS physician, LCDR Hilger recently deployed to the flooding in Louisiana. "Wilderness medicine is about making do with what you have, and deployment is all about that," she said. LCDR Hilger remains involved with Operation Bushmaster, "WildMed", and the NMSCD lecture series on wilderness medicine, and in the future, would love to do more as an expedition doctor. In the meantime, she and her husband continue to backcountry ski, mountaineer, hike, and rock climb and hope to teach their 4-year old daughter to appreciate the mountains and wilderness as much as they do.

Step It Up!

THE SURGEON GENERAL'S CALL TO ACTION TO PROMOTE WALKING AND WALKABLE COMMUNITIES

Contributed by CDR Christopher Barrett

Being physically active is one of the most important steps that Americans of all ages can take to improve their health. Regular physical activity helps improve your overall health and fitness, and reduces your risk for many chronic diseases. The President's Council on Fitness, Sports and Nutrition states that "only one in three children are physically active every day."[1] It also reports that "less than 5% of adults participate in 30 minutes of physical activity each day;[2] and only one in three adults receive the recommended amount of physical activity each week."[3] Regular physical activity over months and years can produce long-term health benefits.

Fitting regular exercise into your daily schedule can prove to be difficult and time consuming for many Americans, but the *2008 Physical Activity Guidelines for Americans* provide flexible standards and activities that give anyone the freedom to reach physical activity goals through different types and amounts of activities each week. An example of one of these activities is brisk walking. Walking is an aerobic activity in which people move their large muscles in a rhythmic manner for a sustained period. Over time, regular aerobic activity makes the heart and cardiovascular system stronger and fitter.[4]

Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities seeks to get Americans walking and wheelchair rolling for the physical activity needed to produce long-term health benefits - including preventing and reducing the risk of chronic diseases and premature death. Getting outside to enjoy nature and socializing with others can also help to promote positive mental health. Unfortunately, serviceable and safe areas are not always readily available for people to accept this charge. This is where *The Surgeon General's Call to Action* comes into play. The *Call to Action* targets strategies that communities can use to support walking, with the goal of long-lasting changes to improve the health and health care for many years to come.[5]

The main goal for the *Call to Action* is to encourage everyone to recognize their role in helping to build a community for Americans that provides easier access to spaces and places that are safe to walk or wheelchair roll. This in turn will encourage physical activity for those who are sedentary or increase physical activity for those who find it a challenge to gain access to safe and walkable communities. The *Call to Action* presents five goals to Americans to support walking and walkability in the United States:

- Make Walking a National Priority
- Design Communities that Make It Safe and Easy to Walk for People of All Ages and Abilities
- Promote Programs and Policies to Support Walking Where People Live, Learn, Work, and Play
- Provide Information to Encourage Walking and Improve Walkability
- Fill Surveillance, Research, and Evaluation Gaps Related to Walking and Walkability

To learn more about *The Surgeon General's Call to Action* and the strategies purposed to achieve the goals listed above please go to www.surgeongeneral.gov.

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United States Public Health Service SLPs Present at the Annual New Jersey Speech Language and Hearing Association (NJSHA) Conference

Contributed by LCDR Cathleen Davies and LCDR Michael Kluk

The 2016 NJSHA conference was held from 14-16 April 2016, and hosted clinicians from throughout the state in the hope of meeting NJSHA's mission to serve audiologists, speech-language pathologists, and speech, language or hearing scientists by providing resources, information, programs, and services that meet members' needs; promoting public awareness; and advocating for professional standards." Speech-language pathologists LCDR Cathleen Davies and LCDR Michael Kluk presented a session entitled "Traumatic Brain Injury (TBI) in the Department of Defense - Policy and Practice". The presentation was moderated by CAPT Michelle Baker-Bartlett, speech language pathologist and 2016 NJSHA Conference Committee member.

L-R: CAPT Michelle Baker-Bartlett, LCDR Michael Kluk, and CDR Cathleen Davies

LCDR Davies outlined the TBI Continuum of Care within the Military Health System from prevention to re-integration. Prevention strategies were presented including head-borne systems, use of seat belts and personal protective equipment, as well as public awareness campaigns. Screening for TBI was discussed by reviewing the Department of Defense policy which requires screening for all Service Members that have been exposed to potential concussive events. The policy outlines guidance for a required rest period if a concussion is suspected. TBI treatment was presented via review of the Defense and Veterans Brain Injury Center (DVBIC) clinical recommendations that have been developed from 2006-2016. Specific "clinical pearls" from these recommendations were highlighted. Comorbidities of Post-Traumatic Stress Disorder and Pain were also reviewed.

Cognitive rehabilitation was the main topic for the Rehabilitation and Recovery part of the TBI continuum. The use of Cognitive Symptom Management and Rehabilitation Therapy (CogSMART), a form of cognitive training to help people improve their skills in prospective memory (remembering to do things), attention, learning/memory, and executive functioning (problem-solving, planning, organization, and cognitive flexibility, such as CogSMART, and recent studies into the effectiveness of cognitive rehabilitation were discussed. Reintegration back into the community is the final stage of the DoD TBI Continuum. During this part of the presentation, LCDR Davies spoke about the TBI program at the National Intrepid Center of Excellence (NICOE) and relayed a number of resources available to patients and family members. Next, LCDR Kluk discussed how these policies and tools were put into practice in the development of the multidisciplinary Traumatic Brain Injury Clinic at Naval Branch Health Clinic Groton. LCDR Kluk described how being a speech-language pathologist made him well-suited to serve as a clinician-leader. His program's interdisciplinary team provides individual and group sessions within a five week intensive outpatient program format. Areas of focus during the program include ADL retraining, vestibular rehabilitation, cognitive rehabilitation, psychotherapy, and holistic health.

LCDR Kluk detailed the cognitive rehabilitation program which focuses on functional tasks, metacognition, environmental modifications, and external aids. Functional tasks include activities such as scavenger hunts, developing To-Do lists, planning an evacuation route, "mission-based" tasks, and giving presentations. Metacognition is defined as the "awareness and understanding of one's own thought processes". Treatment strategies include developing problem-solving scripts which requires a client to determine a goal, identify potential obstacles, plan, predict possible outcomes, do, and review. Environmental modifications are often used in cognitive rehabilitation. LCDR Kluk presented typical modifications used at the Groton program which include having a specific place to keep keys, reduction of background noise, and reduction of distractions. Finally, LCDR Kluk discussed external aids that are utilized to improve cognition after TBI. These can include the use of low-tech devices such as planners, notepads, reminder signs, and timers and high-tech device such as smartphones, smartpens, and Bluetooth tracking devices.

Veterinary Professional Advisory Committee

"The Link" between Animal Abuse and Violent Human Behavior

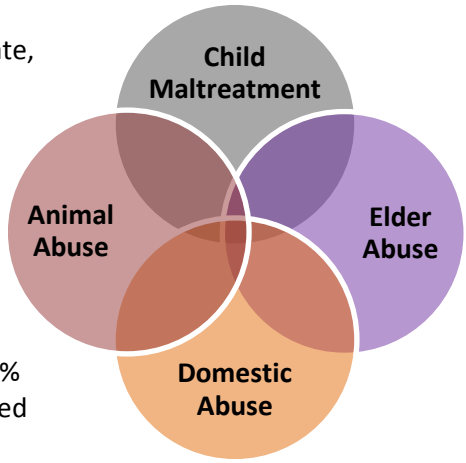
Contributed by LCDR Yandace Brown

In the past, domestic violence against women, abuse of children and the elderly, and violent behavior of serial killers and others who commit similarly atrocious acts have been thought of as separate occurrences and investigated as unrelated issues. Over the past few decades, professionals of various disciplines have come to recognize the complex relationships between these violent and antisocial human behaviors and have also linked them to abusive tendencies toward animals ("the Link"). The National Link Coalition (www.nationallinkcoalition.org) is an informal and multidisciplinary network of individuals and organizations with interests in animal welfare and human services. This organization serves as a clearinghouse for information on this topic and has developed resource materials and trainings (available on their website as shown above) to explore the complex relationship between animal abuse and violent human behavior.

The association between animal abuse and domestic violence, child abuse, elder abuse, or violent behavior is commonly referred to as "the Link".

The National Link Coalition describes animal abuse as one component in a cycle of violence. Exemplifying this cyclical relationship, domestic abusers may commit acts of animal maltreatment in the presence of a child or other household member, often in an attempt to coerce or otherwise inflict emotional harm by threats or malicious acts against a beloved pet or other animal. Such acts clearly demonstrate overt animal abuse coupled with other forms of interpersonal abuse (e.g., child abuse). In turn, children impacted by such abuse are at increased risk of growing up to demonstrate similar abusive behaviors towards animals. The cycle persists as domestic abusers mistreat animals, children witness or participate in such acts, and these same children mature to model the abusive behavior all over again in adolescence and adulthood. In addition, abused children sometimes commit cruel acts towards animals in an attempt to gain a sense of power as compensation for feelings of powerlessness over what is happening to them in the abusive relationship.

The National Link Coalition describes animal abuse as a tool abusers may use to manipulate, intimidate, and retaliate against their victims. The Coalition also ascribes animal maltreatment to the Duluth Model of Power and Control, a recognized approach to understanding domestic violence. The eight components of the Duluth Model are: isolation, emotional abuse, economic abuse, intimidation, using children, denying and blaming, legal abuse, and threats. In each of these categories, the pet is used to exert various manipulative techniques to subdue or control the victim. The National Link Coalition reported that "over 71% of battered women reported that their batterers had harmed, killed, or threatened animals. More than 75% of these incidents occurred in the presence of the women or children to coerce, control, and humiliate them. More than 13% of the children admitted that they had hurt pets, and 7.9% admitted to having hurt or killed animals".[1]



Adapted from http://nationallinkcoalition.org

National Link Coalition
Working together to stop violence against people and animals

http://nationallinkcoalition.org

Animals are often a source of security and comfort, and abusers may take advantage of these relationships to coerce victims into staying in the abusive situation through either actual or perceived threats of harming the animal if they leave. Many domestic violence victims are reluctant to leave their situation without taking their animals with them. In response to this, the Animal Welfare Institute (http://awionline.org/) developed the Safe Haven Mapping Project which provides location information of shelter facilities all over the country that can take in pets of domestic violence victims or offer referral to facilities that can shelter their pets.[2] Additionally, in 2015, U.S. Congresswomen from Massachusetts and Florida introduced the Pet and Women Safety (PAWS) Act of 2015 (H.R. 1258). This bipartisan legislation "expands federal law to include protections for pets of domestic violence victims and establishes a federal grant program to assist in acquiring a safe shelter for pets".[3] This proposed bill remains in committee and is pending Congressional action.

There is mounting evidence supporting the association between violent human behaviors and abusive treatment towards animals. While the correlation is not consistent, and animal abuse is just as likely to occur before as it is to follow violent human behavior, there is an association. Not all children who are exposed to animal abuse in early childhood are destined to become violent criminals; and similarly, not all violent criminals were exposed to abusive treatment of animals as children or have a history of being animal abusers. However, there is commonly a correlation where exposure to the abusive treatment of animals may desensitize impressionable young children to pain and suffering. Violent criminals have been known to practice violent acts on animal victims. Serial killers and mass murders often may have a history of abusing animals. The Animal Legal Defense Fund (http://aldf.org/) names notorious violent offenders such as Albert DeSalvo "The Boston Strangler"; serial rapist Ted Bundy; Jeffrey Dahmer "the Milwaukee Cannibal"; and Dennis Rader "the BTK Killer", who all abused and killed animals prior to moving on to human victims.[4]

Animal abuse can take many forms, ranging from neglect or hoarding to sexual abuse or physical trauma. Though animal abuse may occur in isolation, too often it may serve as a precursor or consequence of human violence. The Coalition observes that animal abuse is often "the tip of the iceberg". Without voices to speak, animals cannot report the maltreatment that they experience. As discussed above, cruelty to animals may be an indicator for violent behavior, a mechanism for desensitization to violent acts, or a tool for domestic abusers to subdue their victims. Several states have cross-reporting legislation, allowing practitioners and law enforcement personnel to report or investigate one form of mistreatment given evidence of another. For example, as of January 2016, veterinarians and animal care and control officers in California and Colorado are mandated to report suspected child abuse or neglect given known animal abuse.[5] Likewise, social workers and adult protective services in Louisiana and West Virginia are legally required to report suspected animal abuse given known mistreatment of children or adults.[6] Recognition and full adoption of the Link principles can be a powerful tool for recognizing, reporting, advocating against, and investigating varied acts of human and animal violence.

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Infection Control in the Dental Setting:
"A Review of Two Documents from the U.S. Centers for Disease Control and Prevention"

Contributed by LCDR Eleanor Fleming

Part of my memories of being a dental student is hearing my prosthodontics professor, Dr. C.T. Smith, giving our class its preclinical manta: "gloves, mask, and eyewear." If he said this once, he said it a million and one times. My second vivid memory of dental school is the annual **Occupational Safety and Health Administration** (OSHA) trainings. Each year, faculty and staff would gather in the Learning Resource Center to review current practices and learn any new updates. While my dental career has taken me far from those days, and now my interest in infection control and prevention is more related to monitoring outbreak and working as an epidemiologist, I still remember these lessons and often reflect on these memories.

This spring the U.S. Centers for Disease Control and Prevention (CDC) Division of Oral Health published two documents highlighting infection control in the dental setting. The first is *Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care*, published on March 28, 2016; the second published on May 24, 2016 in the *Journal of the American Dental Association* is, "Transmission of blood-borne pathogen in US dental health care settings". For the remainder of this article, I refer to these documents as The Summary and "Transmission". Together these two documents serve as good reminders of the "gloves, masks, and eyewear" mantra of Dr. C.T. Smith. Together these documents also provide us, as dental officers, with an opportunity to revisit the infection control practices in our clinical settings and then to consider where we can do more to protect our patients and the other members of our dental team. In the following, I will highlight key points and critical questions from The Summary. Consider this your *Reader's Digest* edition of infection prevention and control. I hope that you will carefully read both documents, especially Appendix B in The Summary which provides relevant recommendations and references published since 2003 [1].

The Summary begins by identifying its intended audience: specifically, dentists, hygienists, assistants, and laboratory technicians, as well as students and trainees, contractual personnel, and "other persons not directly involved in patient care but potentially exposed to infectious agents (e.g., administrative, clerical, housekeeping, maintenance, or volunteer personnel)" [1]. Here's an important question to consider: Are all of these staff persons involved in the inflection control and prevention practices in your clinical setting? Infection control is a team sport where everyone has a role to play.

The Summary then focuses on twelve aspects of infection control and includes a prevention checklist in Appendix A. The checklist is the new addition to this document in comparison to the 2003 version [2]. The summary and checklist are not meant to substitute for the extensive guidelines provided by CDC or OSHA. Nor is The Summary intended to replace policies unique to your practice setting. The document is meant to provide tools to inform those practices and the latest evidence-based knowledge for you and other stakeholders to use.

Table 1 includes highlights from the Infection Prevention Checklist. The highlights are listed by focus area and with key questions for your consideration. It is my hope that as you read Table 1 and review the entire checklist, you will find that you and your facility are doing everything the CDC has recommended. However, if you live in the real world and perhaps answered "No" or "I am not sure," consider this your opportunity to work with the members of your dental team to address those issues.

While it should be obvious why infection control is important, the "Transmission" article drives the point home. The authors reviewed the literature from 2003 through 2015 to identify reports of transmission of blood-borne pathogens US dental settings [3]. Here, the focus is largely on hepatitis B and C. While the authors acknowledge that transmission in the dental setting is rarely reported, in the three highlighted cases, transmission likely occurred because of failure to adhere to the recommendations developed in 2003. In one case, it is suspected that a lapse in cleaning environmental surfaces occurred; in a second case, the handpieces were not sterilized between patients and volunteers were not training on blood-borne pathogens; in the third, unsafe injection procedures were used [3]. The authors conclude: "These transmissions highlight the need for improved understand of infection prevention and control as well as the implementation of standard precautions among DHCP [dental health care providers], including those who are not involved directly in patient care activities".

In highlighting the latest CDC documents on infection control and prevention in dental settings, I hope that you have found something helpful here, and that you will read the documents and share with your dental team, to consider what more you may be able to do in your clinic to support the health and safety of your patients and your dental team colleagues. Infection control may be just the perfect avenue for you to provide leadership in your clinic. And above all, remember to involve all your staff in the review, evaluation, improvement and training steps that you take. Also remember to document what was done, why it was done, and who is responsible for following up on next steps. May the next "Transmission" article be a single sentence: "There was no reported transmission of blood-borne pathogens in US dental settings."

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Table 1: Highlights from the Infection Prevention Checklist, by Focus Area and Key Questions for Consideration

Focus Area	Key Questions for Consideration
Administrative Measures	Are you familiar with the written infection prevention policies at your faculty? Is at least one person trained in infection prevention at your facility? Are the infection prevention policies reviewed annually or in accordance with state and federal regulations?
Infection Prevention Education and Training	Are you receiving annual training on inflection prevention policies and procedures and OSHA Bloodborne Pathogen standards? Are the training records maintained in accordance with state and federal regulations?
Dental Health Care Personnel Safety	Does your facility have an exposure control plan? Are you trained on the OSHA Bloodborne Pathogens Standard at least annually? Are your immunizations current?
Program Evaluation	Does your facility have written policies and procedures for routine monitoring and evaluation of the infection prevention and control program?
Hand Hygiene	Does your facility have the supplies necessary for hand hygiene? Are you using the supplies appropriately (according to manufacture directions)?

Personal Protective Equipment (PPE)	Does your facility have sufficient and appropriate PPE? Were you trained on the proper selection and use of PPE?
Respiratory Hygiene/Cough Etiquette	Does your facility have signs posted with instructions to patients with symptoms of respiratory infection to cover mouth/nose when coughing or sneezing?
Sharps Safety	Are you reviewing annually to see if new safety devices or safer options are available for use?
Safe Injection Practices	Are you familiar with the written policies, procedures and guidelines for safe injection practices?
Sterilization and Disinfection of Patient-Care Items and Devices	Are you aware of the written policies and procedures? Have you received at least annual training on these instruments and devices? Is routine maintenance for sterilization performed according to the manufacturer's instructions and documented with written records?
Environmental Infection Prevention and Control	Are you aware of these written policies and do you receive training at least annual and when procedures change? Are cleaning, disinfection, and use of surface barriers monitored and evaluated to ensure they are consistently and correctly performed?
Dental Unit Water Quality	Are there policies and procedures in place for maintaining water quality to the Environmental Protection Agency (EPA) standards for drinking water?

51st Annual USPHS Scientific and Training Symposium

Contributed by LCDR Scott William

PHS Dental Officers at the
51ST ANNUAL USPHS SCIENTIFIC AND TRAINING SYMPOSIUM Dentists
Category Day

The 51st Annual USPHS Scientific and Training Symposium was held in beautiful downtown Oklahoma City on May 16-19, 2016. This year's symposium was not only a great opportunity for Corps Officers to meet USPHS and DHHS Leadership, but it also served as an opportunity for Corps Officers to display their accomplishments and research from the previous year and learn together through both Category specific and general public health education lectures and continuing education courses.

The event drew scores of attendees from federal agencies such as the Indian Health Service, the Office of Public Health Emergency Preparedness, Bureau of Prisons, the Department of Homeland Security, the National Disaster Medical System, the Health Resources and Services Administration, the Centers for Disease Control and Prevention, the U.S. Food and Drug Administration, the Medical Reserve Corps, the National Institutes of Health, and other components of the Departments of Health and Human Services, Defense, Justice, Transportation, as well as numerous state and local agencies and public health institutions.

CDR Vicky Ottmers started the day with a call to order followed by
opening remarks by RADM Nick Makrides.

2016 Dental Category Day Planning Committee

The theme for the 2016 COF Symposium was titled “Gimme Five: Building a /better Tomorrow through Prevention Today.” Wednesday, May 18th, provided the opportunity for each of the USPHS Categories to host their own Category Day to gain category specific continuing education and present category specific awards. The Dental Category was able to incorporate 6.5 hours of continuing dental education on a broad range of topics focused on enhancing the attendees’ skills as clinicians and public health administrators.

RADM Nick Makrides, DMD, MA, MPH, who serves as the USPHS Dental Category Chief Professional Officer and Chief Dental Officer of the Federal Bureau of Prisons, started the day with a lecture entitled “Dental Risk Management.” The lecture included thoughtful and in depth ways to minimize risk in the dental setting. The lecture included examples of behavior to avoid, as well as, strategies and processes for proper and thorough documentation.

The second lecture of the day was the David Satcher Keynote Lecture provided by CAPT (ret) Steve Geiermann, DDS who serves as the Senior Manager for Access, Community Oral Health Infrastructure, and Capacity Council on Access, Prevention, and Interprofessional Relations (CAPIR) at the American Dental Association. The lecture entitled “An Appreciation of Gray: the Risky Business of Leadership” provided useful guidance on the ever changing landscape of leadership and its hurdles and downfalls. He gave great motivation to push boundaries and look for leadership opportunities in all aspects of our careers.

Current DePAC Chair and Past Chairs

The David Satcher Lecture was followed by lunch and the Dental Category Awards Program conducted by RADM Nicholas Makrides. The lunch session always provides a wonderful opportunity for Officers to socialize and network with fellow Dental Officers from other agencies and areas of the country. RADM Makrides Makrides was honored to present the DePAC Awards, Special Assignment Awards, and CPO Exemplary Service Awards while also recognizing the recipients. During the awards presentation the Dental Category Officers and guests were honored to meet the newly appointed Deputy Surgeon General of the United States, RADM Silvia Trent-Adams PhD, RN, F.A.A.N., who gave a very pointed and motivational talk about her vision of the Corps moving forward and our role in advancing the public health of the Nation.

Following lunch, our third speaker Dr. David Lewis, DDS, MS, presented a lecture entitled "Oral Pathology Update." This lecture was a wonderful update on common oral lesions, their clinical presentations, and treatment. He also covered new strategies for treatment of emerging oral health conditions.

Current DePAC Voting Members

The fourth speaker CDR Mary Williard, DDS, presented a lecture entitled "Mythbusting Dental Therapy." This lecture covered background information on the new training programs for Advanced Dental Therapists as utilized in serving the ever present oral health needs of the Alaska Native Population. She talked about the unique ability the trainees have to return to their communities and serve the needs of their people in rural Alaska.

The final speaker of the day was Major Walter Dimalanta, DDS (US Army). Major Dimalanta presented a very informative lecture entitled "Achieving Success in the Anterior Esthetic Zone." His lecture focused on how advances in modern dentistry and technology, as well as, the increased commercialization of dentistry has put higher demands on restoring the esthetic zone with implants and fixed prosthesis. He gave great clinical insight and treatment modalities to achieve consistent high level results.

CDR Vargas-Del Toro along with RADM Makrides and LCDR Scott B. Williams gave their closing remarks, and the educational portion of Category Day concluded. Category Day also gives the opportunity for Officers to socialize. Officers met at Bolero's Tapas Bar that evening for a wonderful night of food and socializing.

The 2017 USPHS Scientific and Training Symposium will be held in Chattanooga, Tennessee, on June 4-8, 2017. Please visit the Symposium website (http://symposium.phscof.org/) for updates on the upcoming 52nd Annual Symposium.

Highlighting Select High-Impact Publications by Scientist Officers

Contributed by LCDR Kamil Barbour, CDR John Pesce, CDR Loren Rodgers, LCDR Angela Thompson Paul, LCDR Oliver Ou, LT Shiny Matthew, LT Luz Rivera, LCDR Scott Steffen, LT Jonathan Leshin, CDR Gelio Alves, LCDR Lana Rossiter, LCDR Theodore Garnett, & CAPT Fuyuen Yip.

Scientist officers regularly publish quality original research in high-impact journals. These publications often fill major gaps in the literature and have important public health impact. The Scientist Newsletter Team is highlighting some of these publications, including six published in 2015 on which a Scientist officer was first author. In 2014, impact factors for these journals ranged from 3.234 (PLOS One) to 7.764 (Arthritis and Rheumatology). Officers were interviewed about their manuscripts to obtain information about their articles.

Hip Osteoarthritis linked to Increased Risk of All-Cause and Cardiovascular Disease Mortality Via its Impact on Physical Function[1]

Led by LCDR Kamil Barbour, this study followed 7,889 women (age ≥65 years) for ~16 years. After adjusting for many confounders, hip osteoarthritis (OA) was associated with a significant increased risk of all-cause (HR: 1.14; 95%CI: 1.05–1.24), and cardiovascular disease (HR: 1.24; 95%CI: 1.09–1.41) mortality. Associations were partially mediated by physical function. LCDR Barbour indicated, "This is the first study examining the longitudinal association between hip OA and mortality. More studies are needed to confirm our findings, especially studies conducted among different populations." His team's takeaway message: adults with hip OA can improve their physical function and reduce their mortality risk by engaging in recommended arthritis interventions, including physical activity and self-management interventions.

National marijuana prevalence use and perceptions of risk among pregnant and non-pregnant women[2]

Little information is available regarding marijuana use among pregnant women; thus, LCDR Jean Ko and colleagues obtained prevalence estimates and examined women's perceptions of the risk associated with marijuana use. Using combined public-use, cross-sectional data from National Surveys on Drug Use and Health (2007-2012), Ko's team found that marijuana use was reported by 10.9% of pregnant and 14.0% of non-pregnant women of reproductive age in the past year, and by 3.9% of pregnant and 7.6% of non-pregnant women in the past month. Nearly 70% of pregnant and nonpregnant women believed there was slight/no risk of harm in using marijuana 1-2 times per week. Additionally, 18.1% of pregnant and 11.4% of non-pregnant women met criteria for abuse and/or dependence. LCDR Ko concluded that comprehensive screening, treatment, and patient education are needed.

Early Linkage to HIV Care and Antiretroviral Treatment among Men Who Have Sex with Men[3]

To address a component of the 2010 White House National HIV/AIDS Strategy (NHAS), a comprehensive plan with measurable HIV targets to be achieved by 2015, LCDR Brooke Hoots and colleagues examined early linkage to HIV care (an HIV clinic visit within 3 months of diagnosis) and antiretroviral (ARV) treatment among men who have sex with men (MSM) in 20 US cities. Using data from CDC's National HIV Behavioral Surveillance System, LCDR Hoots found that the "prevalence of early linkage to care among this sample of MSM was relatively high, at 83% in 2011." ARV treatment was also high (79%) but differed by race; as LCDR Hoots explains, "We observed a disparity between black and white MSM in ARV treatment, with a 9% higher prevalence of ARV use among whites compared to blacks." LCDR Hoots states, "Our analysis suggests that the NHAS goal of linking 85% of MSM to early care is feasible among HIV-positive MSM." She cautions, however, that "younger, black MSM are the only demographic group for which HIV is increasing in the US, so it is important to monitor disparities in ARV treatment and decrease barriers to ARV provision and adherence among this group." Her team's findings highlight that more effort is needed to decrease barriers to ARV provision and adherence among black MSM to reduce the disparities in treatment.

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Deployment Vignette:
Scientist Officer Reflects on Experiences Assisting with Humanitarian Crisis

Contributed by LCDR Luis Iturriaga

On June 30, 2014, President Obama declared a "humanitarian crisis" in the Rio Grande Valley region of the United States due to a large influx of women and children from Guatemala, Honduras, and El Salvador, who were crossing the border from Mexico into Texas. The Department of Homeland Security (DHS) opened a new family residential facility in Artesia, NM, to manage the surge. I was detailed to the area as a Subject Matter Expert to create and launch a mental health program for this population that would meet National Policy and Residential Standards.

Upon arrival, I was provided with housing in the barracks, which is when I first noticed that the community around me appeared to be a barren area with no other accommodations nearby. I entered into the space that would eventually become the clinic; it was an empty storage building. When I stepped inside, I heard some other PHS officers talking about how they had never previously worked with children and families; indeed, most officers had limited experience working with minors and found this new assignment to be a potentially daunting task. There was a sense of trepidation and disorientation, but also excitement about the opportunity to serve this group in need.

Although the task seemed at times overwhelming and formidable, all officers were able to come together as a team and complete the mission's objectives. For the next 30 days, working at least 15 hours per day, the team of medical, administrative, and mental health professionals would create a medical and mental health program for this very vulnerable population. Through the hard work and experiences we shared, the team developed a strong bond, one that remains intact today. In addition to the everyday rigor of creating a clinic, as part of this high-profile, high-visibility of this mission, officers met with officials from international governments and agencies, dignitaries from the United Nations, U.S. Senators, DHS cabinet members, and media outlets. Each day, officers, including myself, worked tirelessly in extreme heat and challenging conditions, moving and stocking supplies, modifying building structures, training government officials, and creating policies and procedures, all while trying to maintain a sense of sanity. We were under pressure to have the clinic ready before the arrival of the first 200+ residents, who would include infants, children, adolescents, and adults. Our efforts were met with some community resistance, likely in part due to concerns about who would be housed in the facility and potential impacts on their community, and for this mission, officers were asked not to be in uniform when traveling to the city, and were vigilant about bearing in mind the community concerns pertaining to the mission.

Hundreds of residents arrived on the first day, scared and confused. After meeting with them, it seemed a giant weight was lifted off their shoulders and a sense of relief was apparent once they realized they would have sustenance and a temporary place to stay. This sense of calm and appreciation among the families we served is a vivid memory I will never forget. There was never any training that could have prepared me for this experience, as hundreds of desperate women and children were looking at me for answers about what was to come. The transition back from this fulfilling deployment to my daily life and work was smooth; however, I will never forget the faces of those I was able to provide for, especially the faces changing from desperation to appreciation.

Louisiana Major Flood Response Highlights Expanded Disaster Roles for Engineers

Contributed by CDR Nathan Epling and LT James Coburn

CDR Nathan Epling, RDF-3 Operations Section Chief (acting) and LT James Coburn, Medical Records officer, are both Engineers on RDF-3 and deployed to Baton Rouge, Louisiana in response to the recent major flood events.

CDR Nathan Epling and LT James Coburn deployed with 101 other officers on USPHS Rapid Deployment Force 3 (RDF-3) to staff a Federal Medical Shelter (FMS) in Baton Rouge, Louisiana. The 250-bed special needs medical shelter was set up in the Louisiana State University (LSU) Track and Field House on Sunday, August 14, 2016 by the Louisiana Department of Health (LADOH) and many LSU student volunteers. Nurses and doctors from LADOH and LSU, as well as volunteer healthcare providers, initially cared for flood-affected patients despite the fact that the flooding had impacted many of their own lives.

RDF-3 was activated on August 14, an advance team arrived in Baton Rouge on August 15, and the remainder of the team arrived August 16-17 to begin staffing the shelter alongside federal Disaster Medical Assistance Teams (DMATs) from Alabama and New Mexico. These teams gave round-the-clock healthcare, logistical, and administrative support for the patients and the shelter. The Louisiana State Police, the LSU Police Department, and the Army and Air National Guard provided facility security and patient transport. The Louisiana Department of Children and Family Services managed the facility and furnished essential services such as food and sanitation, patient registration, and discharge planning.

Nearly 300 patients and caregivers who were displaced by the flood were served in the LSU Track and Field House. Patients had medical conditions including oxygen dependency, dialysis needs, mobility issues, hospice care, and complex chronic diseases. RDF-3's participation in the mission lasted two weeks. All the PHS categories performed vital functions to make the mission a success and create a positive environment for the shelterees, partner agencies, and responders.

Engineer officers on RDF-3 performed a variety of functions in support of direct patient care on this mission, shown in two perspectives from a junior officer involved in keeping medical records and a senior officer leading the Operations Section.

From LT Coburn:
I originally joined RDF-3 after being called up from Tier 3 to provide support on a previous mission. The mission required someone to streamline and automate the interactions between PHS and outside agencies and also act as field IT support. In August 2016, when floods struck Louisiana, I was again able to provide similar help to the FMS. A multi-disciplinary team performed registration and discharge of all shelterees as well as maintaining daily headcounts and disposition numbers. One of the challenges was to automate some of the workflows for data tracking to make timely and accurate reports to federal and state officials. Mission needs evolved over the course of the deployment and involved close coordination between medical records and epidemiology. Responding to frequent requests for information and coordinating with planning and clinical staff created many opportunities to work across sections. Briefings and in-service training sessions were great ways to stay current and learn more about other deployment roles.

My training as an engineer imparted vital technical skills in problem solving, computer programming, and algorithms as well as the ability to work under the tight timelines that disaster response missions require. My deployment experience has shown me that engineers can have critical roles in aiding victims of disasters by working closely with multi-disciplinary teams.

From CDR Epling:
Engineer officers often expect their role for emergency deployment to focus on using their technical skills with structures, devices, mechanical systems, public health facilities and other discipline-specific applications. However, engineers typically have more general hard-skills that can be very valuable on USPHS deployments such as project management, computer and network proficiency, logistical planning, and data management. This can lead to deployment opportunities in logistics, administration and planning sections as well as managing information, such as medical records or epidemiological data – all of which would be valued on many USPHS deployment teams. Engineers with well-developed soft-skills like public speaking, people management, creative writing, and workgroup coordination are also valued for leadership positions on these teams. The following table summarizes different types of deployment skills.

Engineering skills	Hard-skills	Soft-skills
Discipline-specific engineering design and analysis Cost estimating Project scheduling	Project management Logistical planning Computer and network proficiency Data management	Non-technical writing Public speaking Managing people Interdisciplinary team leadership
Potential deployment roles Disaster Response Engineer Safety Officer	Potential deployment roles Logistics, Administration, and Planning Section Member Records administration	Potential deployment roles Branch, Section, or Team Leader Liaison Officer

These types of skills facilitate cross-category successes by allowing engineers to work with multiple disciplines to transfer knowledge and information effectively and efficiently during a disaster response. For example, in this deployment, I helped develop a training video on patient movement with two Therapist officers for RDF team members to reference before deployments.

In response to the flooding in Louisiana, RDF-3 successfully deployed LT Coburn and myself with assignments outside of traditional engineering roles. We are both grateful for these experiences and look forward to future opportunities to challenge ourselves to meet the unique needs of future public health missions.

About this Edition

QUESTIONS OR PREVIOUS EDITIONS

For questions on this document please contact CDR Luis Rodriguez at ved8@cdc.gov. For previous editions please visit our website at https://dcp.psc.gov/osg/paccg/.

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