The 55th USPHS Scientific and Training Symposium was scheduled to begin on Monday, June 15, 2020 in Phoenix, Arizona. The Symposium is, for many of us, the high point of each year. A time to listen to and learn from our colleagues, to hear from the leadership of the USPHS Commissioned Corps, and to celebrate the uniqueness of the only uniformed service in the world dedicated to public health.

It’s also a time to see old friends, make new ones, and receive support from colleagues—old, young and in-between—who understand the role, the responsibilities, the challenges, and the exceptional rewards of serving people and communities across the United States and around the world, on duty 24 hours a day, seven days a week, 52 weeks a year, for an entire career.

As they do every year, officers submitted abstracts for presentations at the Symposium, sharing their work—the results of their research, the outcomes of projects they had undertaken, best practices and learnings from the varied experiences that only service in the Commissioned Corps can offer. The conference program was planned, the agenda was organized, and expectations were set for the best meeting yet.

Of course, the Symposium didn’t take place. From the first day the world became aware of the COVID-19 pandemic, Commissioned Corps officers immediately became involved in the fight against SARS-CoV-2. Today, they continue to serve, working on the frontlines, managing crisis response, conducting research, providing the best scientific information on prevention, treatment and community resilience.

We are sharing in this book the abstracts that would have been presented in Phoenix in June 2020. The information contained in those abstracts has value in formulating our response to the panoply of public health problems we faced before the COVID-19 pandemic, that we continue to deal with, and which will occupy so much of our efforts when the pandemic has been brought under control.

On May 23, 2022, we will meet again, in person, in Arizona, as a Corps of active-duty and retired officers, public health professionals and government officials, friends, families, and supporters. We will celebrate the victory of science over disease, of compassion over fear, of truth over disinformation, and we will celebrate the Commissioned Corps officers of the U.S Public Health Service who stand guard against the world’s most dangerous threats, as they have for over 200 years.

This book represents a very small part of who they are. Join us in Phoenix in May 2022 and hear the rest of the story.

Steven L Solomon, MD, FACP, FIDSA
RADM, Asst Surgeon General (Ret.), US Public Health Service
President, Commissioned Officers Foundation for the Advancement of Public Health
Dear Fellow Public Health Service Officers,

Serving as your Surgeon General from 2014-2017 was the honor of a lifetime, one that I never imagined I would have twice. It has been a true privilege to be able to join you once again. When my wife Alice and I talked about returning to public service, we were inspired in no small part by my experience working with you in the past. And while I wish I could tell you this in person at the annual USPHS Scientific and Training Symposium, I am optimistic that we will be able to have our gathering in the spring of 2022.

During my first tenure as Surgeon General, I was blessed to meet many of our officers as I traveled the country. In the stories you shared with me over meals and listening sessions organized by COA chapters across the country, I saw the fundamental values of our service shine through: passion, dedication, and an unyielding commitment to advance the health of our nation. I will also always remember how you welcomed me and my wife Alice into the Corps with such generosity and warmth. We felt this even more when our son Teyjas was born in 2016. Alice, Teyjas, and our three-year-old daughter Shanthi are excited to join the Corps family once again.

Over the last year, I have watched with pride as you responded to the COVID19 pandemic to help our nation turn the tide on the defining public health challenge of our time. I know the response placed extraordinary demands on you and your families as many of you undertook difficult deployments and often more than once. When we do finally emerge on the other side of this pandemic, it will be in no small part because of the service you rendered and the sacrifices you made. I am grateful to you for all you have done.

I know that we are facing great challenges as a nation. COVID19 continues to threaten lives and livelihoods. Unaccompanied children on our border are in need of support and assistance. Mental illness and substance use disorders are taking an even greater toll on our fellow Americans. And racial and geographic inequities in health continue to remind us that we have more work to do to ensure good health is within the grasp of every person in America. These are daunting challenges. Our success or failure to address them will define the future of public health for a generation and beyond. I believe that taking them on will require the ingenuity and dedication of the US Public Health Service Commissioned Corps.

A great deal has already been asked of the USPHS Commissioned Corps and more will be asked of us. The days ahead will not be easy. But I also know that when we stand together and support one another, we can rise to meet the moment and improve the health of millions in the process.

Thank you for your dedication to the Corps and to our country.

Sincerely,

VADM Vivek Murthy
U.S. Surgeon General
We deeply appreciate our Academic Partners who provide year-round support to the Commissioned Officers Association and the PHS Commissioned Officers Foundation.

**The Ohio State University**

**Keck School of Medicine of USC**

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The following organizations had committed to Sponsor the 2020-2021 USPHS Scientific and Training Symposium. We are grateful for their support of the Foundation and the Officers.

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- US WorldMeds
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Diabetes in Pregnancy and Risk of Near-Miss, Maternal Mortality and Adverse Fetal Outcomes

LT Ubong Akpan, PharmD, RN, BSN, Clinical Pharmacist, Indian Health Service

In this study, we investigated the association between diabetes in pregnant women and maternal near-miss incidents, maternal mortality and selected adverse fetal outcomes. The Nationwide Inpatient Sample (NIS) dataset covering the period from January 1, 2002 through December 31, 2014 was analyzed. The study's primary exposures were gestational diabetes (GDM) and pre-pregnancy diabetes (DM). The maternal outcomes of interest were in-hospital mortality and near-miss and the fetal outcomes were early onset of delivery, poor fetal growth and stillbirth. The analysis encompassed about 57.3 million pregnant women over the study period from 2002 through 2014. At the conclusion of this presentation the learner will be able to:

- Describe the trend in the prevalence of gestational diabetes and pre-pregnancy diabetes in the United States from 2002-2014.
- Explain the association between diabetes in pregnant women and maternal near-miss incident and maternal mortality.
- Describe the relationship between diabetes in pregnancy and selected adverse fetal outcomes: early onset of delivery, poor fetal growth and stillbirth.

Mumps: Managing A Single Center Outbreak - Response, Management, Intervention and Result - Report from the Boots on the Ground

CDR Christina Andrade, PharmD, Clinical Pharmacist, Immigration and Customs Enforcement, Health Service Corps
LCDR Kenneth Felkley, PA, Lead Advanced Practice Practitioner, Immigration Customs Enforcement, Health Service Corps

The United States has been experiencing mumps outbreaks in close-knit communities such as college campuses and dormitory settings more commonly since 2016. Mumps is a highly viral disease that causes swelling of the parotid gland that typically begins with a few days of fever, headache, myalgia, fatigue and anorexia and in severe cases can progress to orchitis or meningitis.

Montgomery Processing Center is a detention facility that received a patient who was positive for mumps which soon led to a small cohort of patients that were symptomatic for mumps and began to show positive corresponding lab results.

The presentation will describe the setting and nature of the outbreak, the response from the U.S. Public Health Service (PHS) Medical Unit, implementation of cohorting techniques, lessons learned, requested changes and resultant implementation of national immunization policies and subsequent resolution of the mumps outbreak at a local level.

At the conclusion of this presentation the learner will be able to:

- Define common symptoms of Mumps and describe a setting where Mumps could be highly contagious.
- Examine and critique a response from a PHS medical team to an outbreak.
- Identify and apply when a patient or healthcare setting may benefit from providing/receiving a third MMR (Mumps, Measles and Rubella) vaccine.
Emotional Violence in Childhood and Health Outcomes, Risk-Taking Behaviors, and Violence Perpetration Among Young Adults in Nigeria

LT Francis Annor, PhD, Epidemiologist, Centers for Disease Control and Prevention

BACKGROUND:
Globally, over 1 billion children are victims of violence annually. Studies examining the health consequences of childhood violence have mostly focused on childhood physical violence (PV) and sexual violence (SV). Recent evidence suggests that childhood emotional violence (EV) may also be deleterious to the health and well-being of victims. This study examines the independent association between EV and some health conditions, risk-taking behaviors, and violence perpetration among Nigerian young adults ages 18-24 years.

METHODS:
Data from a 2014 Nigeria Violence Against Children Survey (VACS), a nationally representative cross-sectional survey of adolescents and young adults ages 13-24, were used. Childhood EV was defined as EV victimization before age 18 perpetrated by a parent, adult caregiver or other adult relative. Logistic regression analyses assessed the association between EV in childhood and mental distress in the past 30 days, self-harm behaviors and history of sexually transmitted infections; risk behaviors such as excessive alcohol use in the past 30 days; and violence perpetration.

RESULTS:
After controlling for study covariates, EV in childhood was associated with mental distress in both males and females, and self-harm behaviors in females; excessive alcohol use and infrequent condom use in males, and multiple sexual partners in females; and PV perpetration in males and SV perpetration in females.

CONCLUSION:
EV in childhood is associated with some health conditions, risk-taking behaviors, and violence perpetration. Implementing programs that address all forms of violence in childhood, including EV, may benefit children.

At the conclusion of this presentation the learner will be able to:

- Identify some health conditions associated with childhood emotional violence.
- List and explain some independent health risk factors and violence perpetration associated with childhood violence.
- Explain the importance of addressing emotional violence in children.
Characterization of Burden and Geographic Distribution of Diagnostic Testing for Alpha-gal Syndrome in the United States, 2010-2018

**LCDR Paige Armstrong, MD, MHS, Epidemiology Team Lead, Centers for Disease Control and Prevention**

Alpha-gal syndrome is a recently identified type of food allergy to red meat and other products made from mammals.

During 2010-2018, 105,675 persons were tested for IgE to galactose-alpha-1,3-galactose (alpha-gal) antibodies, and 32.4 percent had at least one positive result. Sensitization to alpha-gal IgE increased from 0.36 in 2011 to 2.39 per 100,000 in 2018. Females, age 60-69 years, and individuals in the south tested positive most frequently. This study provides the largest description of trends in sensitization to alpha-gal IgE in the United States, suggesting that the public health burden of AGS is greater than previously thought.

At the conclusion of this presentation the learner will be able to:

- Identify the public health implications of Alpha-gal Syndrome.
- Describe the public health burden associated with Alpha-gal Syndrome.
- Identify key features of Alpha-gal Syndrome to aid in educating other healthcare professionals.

Pharmacists Prescribing Hormonal Contraceptives: Expanding Healthcare Access and Leading the Way in Reproductive Health

**CDR Kimberly Langley, PharmD, MBA, BCPS, Clinical Pharmacist/Residency Program Director, Indian Health Service (IHS)**

**LCDR Kemi Asante, PharmD, MPH, RAC, Consumer Safety Officer, U.S. Food and Drug Administration (FDA)**

This presentation will explore:

- The scope and impact of unintended pregnancies in the United States (U.S.)
- Pharmacist involvement in addressing this public health issue, including prescribing hormonal contraceptives and expanding access to healthcare.
- Current legislation, policy development and advocating for pharmacist contraception prescribing authority at the local and state level.
- Opportunities for U.S. Public Health Service (PHS) officers to make a positive impact on women's health.

At the conclusion of this presentation the learner will be able to:

- Explain the impact of unintended pregnancies in the U.S. and identify three barriers to contraception use.
- List the states in the U.S. where pharmacists have prescribing authority and how to advocate for prescribing authority in states that currently do not authorize it.
- Identify a way in which PHS pharmacists are making a direct impact on women’s reproductive health.
Connecting Department of Defense (DoD) Personnel to Public Health - A CDC, DoD and NACDD Partnership

CAPT Graydon Yatabe, RD, MPH, Senior Advisor, Centers for Disease Control and Prevention (CDC)
LCDR Eileen Bosso, MPH, AEMT, Health Scientist (Policy), Centers for Disease Control and Prevention

The Center for Disease Control and Prevention’s (CDC) National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) helps people and communities prevent chronic diseases and promotes health and wellness for all. The Building Healthy Military Communities (BHMC) pilot is a multi-year initiative that aims to better understand unique challenges faced by geographically dispersed Service members and their families that may impact their readiness, resiliency and well-being. This program is intended to improve Total Force Fitness, a framework utilized by DoD that encompasses eight domains of fitness. Three of these domains (Physical, Nutritional, and Behavioral), align directly with divisions within NCCDPHP, including the Office on Smoking and Health and the Division of Nutrition Physical Activity, and Obesity (DNPAO). DNPAO protects the health of Americans at every stage of life by encouraging regular physical activity, good nutrition, and preventing adult and childhood obesity.

As a result of this strategic overlap, CDC partnered with DoD to support the BHMC initiative and identify opportunities to better connect public health with DoD personnel and Service members in states and communities.

Through a cooperative agreement, DNPAO worked with the National Association of Chronic Disease Directors to develop a toolkit focused on healthy weight, substance misuse, and behavioral health. The toolkit provides strategies to BHMC State Coordinators and other DoD personnel to engage in effective communications with public health and related agencies. The toolkit also outlines methods for identifying state and local resources available and provides guidance on evidence-based approaches that promote the health of the entire communities in which Service members live.

At the conclusion of this presentation the learner will be able to:

- Identify opportunities to help state agencies better understand the needs of Service members residing in their state.
- Describe the overlap between CDC’s public health priorities and DoD’s Building Healthy Military Communities pilot objectives.
- Describe two community approaches to reach Service members.
USPHS Pharmacists Set Sail with the U.S. Navy Aboard the USNS Comfort

**CDR Robert Boyle, PharmD, BCPS, NCPS, Clinical Pharmacist, Indian Health Service (IHS)**

**LT Fengyee Zhou, PharmD, NCPS, Clinical Pharmacist, IHS**

The USNS Comfort’s Continuing Promise 2019 mission was to provide medical services to countries in Latin America in response to the Venezuelan crisis. The mission included USPHS officers from multiple disciplines. This presentation will focus on the deployment experience of U.S. Public Health Service (USPHS) pharmacist officers.

At the conclusion of this presentation the learner will be able to:

- Describe USPHS pharmacists’ role aboard the USNS Comfort.
- Identify the impact of USPHS pharmacists on pharmaceutical care to the host nations.
- Illustrate examples of how USPHS pharmacists collaborating with the sister services support the mission of the USPHS.

Pharmacist Integration into the Medical Home Model-ALL IN!

**CAPT Michael Truesdell, MD, Medical Director, Indian Health Service/Salt River Integrated Health Care**

**CDR Robert Boyle, PharmD, BCPS, NCPS, Clinical Pharmacist, Indian Health Service / Salt River Integrated Health Care**

The Salt River Integrated Health Care team credentialed pharmacists to practice at a higher level within the Medical Home model. Specifically, the team had a goal of removing silo and/or stand-alone care. This presentation will focus on the results, the challenges and the paths forward for this model of delivering care to chronic disease patients.

At the conclusion of this presentation the learner will be able to:

- Explain credentialing requirements to incorporate clinical pharmacists into the chronic care model.
- Describe the impact of this model on diabetes and hypertension at this clinic.
- Identify areas in the learner’s own practice where collaboration may benefit patients.
Adolescent Vaping Epidemic: See Beyond the Haze

**CDR Brian Burt**, MSHS, PA-C, Deputy Chief of Surgery, Indian Health Service

This presentation will:

- Review the statistics on adolescent vaping.
- Provide an overview of vaping and methods to properly screen.
- Describe a brief intervention.
- Provide anticipatory guidance and review treatment options.

At the conclusion of this presentation the learner will be able to:

- Quantify the magnitude of the youth vaping epidemic.
- Describe how vaping works and identify the various components used to vape.
- Effectively screen and provide a brief intervention and anticipatory guidance in clinical practice.

An Analysis of Behavioral Health Services Within the Immigration Health Care System

**CAPT Indira Harris**, LCSW, BCD, Chief, Behavioral Health Unit (BHU), Immigration and Customs Enforcement Health Services Corps (IHSC)

**LCDR Renee Cannon**, LCSW, BCD, Western Regional Behavioral Health Consultant, IHSC

The Behavioral Health Unit (BHU) discovered the need to diversify cultural services and enhance provider-patient care collaboration. As a result of this ground-breaking program, BHU found that effective immigration behavioral health care intrinsically relies upon patient-centered treatment and services. This presentation will highlight the clinical practices used in this specialized unit that are scalable and can be transferable to any clinical setting in any system of care.

At the conclusion of this presentation the learner will be able to:

- Describe IHSC BHU operational structure within immigration health care.
- Analyze healthy patient-centered behavioral health treatment and services utilized in IHSC detention settings.
- Identify three ways to duplicate patient-centered behavioral health practices used by the IHSC in various clinical settings.
Overview of FDA’s Post-Market Drug Safety Initiatives: Case Study of Valsartan/Angiotensin II Receptor Blocker (ARB) Safety Recall

**LCDR Nathan Caulk, MS, BSN, RN, NHDP-BC, Senior Regulatory Management Officer, U.S. Food and Drug Administration (FDA)**

What does it mean for patients when a common blood pressure medicine to treat serious medical conditions is “recalled” due to a human carcinogen found in their medication? For decades, angiotensin II receptor blockers (ARBs) have been helping people who have heart conditions, high blood pressure, or may be at risk of a stroke or heart attack. In 2018, the U.S. Food and Drug Administration (FDA) reported that some ARBs contained a chemical that can cause cancer after long-term exposure. We will walk through a brief overview of FDA’s post-market drug safety initiatives, including a case study of the valsartan recall, review some lessons learned from FDA’s response to the contaminated medicine, and, most importantly, recognize how FDA provides clinically-appropriate risk communications at the time of recalls.

At the conclusion of this presentation the learner will be able to:

- List the Prescription Drug User Fee Act (PDUFA) Reauthorization Performance Goals that are FDA’s commitment to enhance and modernize the FDA Drug Safety System.
- Name three messages patients received during the valsartan/ARB recall regarding what to do with their medication.
- Explain the communication strategies used when FDA notifies the public of a drug safety recall.
10 Years of Fostering Collaboration: The Science and Networking Behind the CDER Academic Collaboration Program

**CDR Margaret Caulk, MPH, MS, COR II, Senior Regulatory Program Manager, U.S. Food and Drug Administration**

In 2010 eight health professionals joined the U.S. Food and Drug Administration’s (FDA) Center for Drug Evaluation and Research (CDER) Academic Collaboration Program and Commission. Subject matter expertise covered nursing, health administration, psychology, dietetics and pharmacy. Each officer worked on individual projects related to promoting health in the Phoenix, Arizona area, and with high-risk groups. These officers provided nursing services, psychological counseling, establishment of fitness programs for youth at risk for obesity-related illness, nursing education for future professionals, subject matter expertise in clinical study evaluation and biostatistics to improve data review. Officers also worked on the first-ever cross-university medical and pharmacy degree program.

These officers united to create a robust educational and outreach program to promote health to at-risk populations and fill a gap for care and program design that was existing throughout Arizona. After a two-year program at Arizona State University, College of Nursing and Health Innovation, and a three-month internship at the FDA Headquarters in Silver Spring, Maryland, the officers launched their regulatory health careers. As seasoned health professionals, the officer’s work are revisited, and show how the innovative Masters of Regulatory Health program between the Center for Drug Evaluation and Research and Arizona State University had a direct and continued impact on improving and advancing health, and without such a program, the officers would not have been able to contribute so highly to advancing the health of our nation due to the regulatory knowledge and collaboration they received from ASU.

At the conclusion of this presentation the learner will be able to:

- Explain three ways that the CDER Academic Collaboration Program (CACP) advanced the health and safety of the nation by creating community partnerships.
- Describe three separate areas of study that benefited from student/professional work from CACP participants.
- Describe internal and external partnerships that the networks created during school time have reached beyond FDA to improve health impacts across the United States.
Highly Infectious TB in a Prison: Challenges and Success Through Teamwork

*CDR Anthony Chambers, MD, CCHP, Clinical Director, Bureau of Prisons*

The presentation will discuss the public health importance of rapid recognition of tuberculosis (TB) in a correctional environment. This will be illustrated with a case presentation. This presentation will discuss the best practices in corrections for treating tuberculosis, including the proven regimen of 12-week isoniazid/rifapentine. We will explore organizing a contact investigation and the role of data management and data analytics in navigating a challenging process. The presentation will cover some lessons learned.

At the conclusion of this presentation the learner will be able to:
- Explain the necessity of rapid recognition of TB in a correctional setting.
- Describe the advantage and utility of using 3HP in a correctional setting.
- Explain the use of data management and data analytics in a large scale contact investigation in a correctional setting.

Reduced Insulin Clearance: An Emerging Risk Factor in the Development of Type 2 Diabetes

*CAPT Douglas Chang, MD, Medical Director, Obesity and Diabetes Clinical Research Section, National Institute of Diabetes, Digestive and Kidney (NIDDK) - Phoenix*

*CDR Theresa Rodzewik, DNP, FNP-BC, ENP-C, Nurse Practitioner Specialist, Phoenix Indian Medical Center*

This talk will briefly review the known pathogenic mechanisms involved in type 2 diabetes and present data from a longitudinal cohort of Native Americans living in the Southwestern United States, supporting the role for reduced insulin clearance, an emerging risk factor for type 2 diabetes.

At the conclusion of this presentation the learner will be able to:
- Describe known pathogenic mechanisms involved in type 2 diabetes.
- Identify reduced insulin clearance as an emerging risk factor for type 2 diabetes.
Words Matter in Addressing HIV/AIDS Stigma: A Case Study with an Hispanic Adolescent

**CDR Luz Rivera**, Psy.D., MS, M.A. Ed., PACE Regional Director, Office of the Assistant Secretary for Health (OASH)

**LCDR Rodrigo Chavez**, M.A, HSA, Regional Deputy Director PACE, OASH

HIV-related stigma refers to negative beliefs, feelings and attitudes towards people living with HIV, their families, people who work with them (HIV service providers), and members of groups that have been heavily impacted by HIV. This presentation will offer options to use adequate stigma reducing words with the Latinx population. The data was obtained from qualitative interviews and a case study.

At the conclusion of this presentation the learner will be able to:

- Describe the Latinx challenges and barriers to service due to language and cultural factors.
- List social determinants of health and disparities that influence Latinx population.
- Describe a strategy with the potential to address Latinx stigma.

A Case Study of Data Management and Excel Skills Training in the Democratic Republic of Congo

**CDR James Coburn**, MSc, CPH, CQA, Senior Advisor for Emerging Technologies, U.S. Food and Drug Administration

**Dr. Kristen Pettrone**, MD, Epidemiologist, Centers for Disease Control and Prevention

Since August 2018, the Democratic Republic of Congo (DRC) has been facing its tenth outbreak of Ebola Virus Disease (EVD). At the request of the DRC Ministry of Health and Ebola Response Coordination, a Centers for Disease Control and Prevention (CDC) team, embedded with the Goma sub-coordination, implemented a data management and Excel training course. The training included 18-hours divided into six 3-hour sessions for 30 participants. It was heavily weighted to interactive exercises and small group exercises directly applicable to daily work activities.

At the completion of the class, the participants all felt that they were comfortable with the material, increasing the Excel skill scores by at 1.3 - 2.5 points on a 5-point scale. After observing the processes and daily activities of several pillars of the sub-coordination it was decided that a short form course with small interactive classes would be most beneficial. A large hurdle for data managers was to apply the concepts to new situations rather than simply using the same formula in the same way. The class was seen by participants and the Ministry of Health as a success. Future plans are to implement an expanded version of this course across the other sub-coordinations.

At the conclusion of this presentation the learner will be able to:

- Describe hurdles to implementing data management training.
- Identify key elements of the field-based data management training.
- Apply successful techniques to other outbreak settings.
A Patient- and Community-Focused Approach to HIV Treatment

CAPT Brenda Cook, RN, MSN, CCM, Primary Care Nursing Director, Southcentral Foundation
CDR Thor Brendtro, RN, ACRN, Registered Nurse Case Manager, Southcentral Foundation

HIV treatment has advanced significantly. Today, most HIV-positive patients are able to be virally suppressed (with the prospect of living a full life) by taking a once-daily single-tablet regimen. However, the Centers for Disease Control and Prevention (CDC) reported in 2015 that only 57% of diagnosed HIV-positive people in the United States were retained in care, with only 60 percent being virally suppressed.

Southcentral Foundation (SCF), an Alaska Native-owned health care organization located in Anchorage, Alaska, has implemented a relationship-based treatment approach for HIV-positive patients, where integrated care teams work together with customer-owners. SCF also has established an HIV case manager, who works closely with the integrated care teams, which include behavioral health consultants, regarding care coordination for HIV-positive patients. This coordination can both help people currently receiving care, and bring back those previously lost to care so they can receive the treatment they need. The HIV case manager takes several steps to accomplish this, including working with outside organizations and communicating with patients about treatment plans and medications. SCF’s care coordination has resulted in 99 percent of HIV-positive patients receiving care, 98 percent being prescribed antiretroviral therapy (ART), and 87 percent being virally suppressed (meaning they are unable to transmit the virus).

SCF’s results show that a relationship-based approach that engages patients and the community can help ensure that HIV-positive patients get the treatment and the support they need to manage their illness, and improve public health by reducing the number of people who can transmit the HIV virus.

At the conclusion of this presentation the learner will be able to:

- Assess the ways in which a relationship-based approach can be beneficial for helping HIV-positive patients.
- Describe the steps SCF takes to work with patients and the community to help those diagnosed with HIV.
- Compare the results of SCF’s HIV treatment program with results from other treatment programs.
Providing Comprehensive Care for Optimal Results

**CDR Velliyah Craig, RPh, NCPS, Clinical Pharmacist/Nicotine Cessation Director, Phoenix Indian Medical Center**

**LCDR Lessina Williams, PharmD, NCPS, Clinical Pharmacist, Phoenix Indian Medical Center**

The purpose of this presentation is to establish why nicotine is more than an addiction and why it is difficult to quit. The session will examine the difference between commercial nicotine products and traditional tobacco. Attendees will learn how commercial tobacco can cause and decrease control of chronic medical conditions and also ways to assist patients to find better ways to get control for overall optimal health and well-being.

At the conclusion of this presentation the learner will be able to:

- Describe different forms of nicotine products and why patients have a difficult time quitting.
- List the complications associated with nicotine products, including electronic nicotine devices.
- Apply effective skills of intensive intervention to help patients quit nicotine products and improve overall health.

Impact of an Antimicrobial Stewardship Program on Prescribing Practices and Appropriate Antibiotic Utilization in a Federally-Funded Tribal Hospital

**LCDR Matthew Daab, MD, MPT, Family Medicine Physician/Chair, Antimicrobial Stewardship Committee, Tuba City Regional Healthcare Corporation**

**LT Alexandria Edwards, PharmD, Pharmacist/Pharmacy Leader, Antimicrobial Stewardship Committee Tuba City Regional Healthcare Corporation**

The problem of antimicrobial resistance is not a new one, but in recent years it has come to the forefront as resistance rises and multidrug resistant organisms have increased nationally and globally. In an effort to turn the tide, antimicrobial stewardship programs (ASPs) have been developed and are now mandated. While these programs have been shown to be effective in reducing inappropriate antibiotic prescribing, implementing these programs in facilities with reduced funding and staffing can prove to be challenging. Nonetheless, all facilities have an obligation to implement these programs, and with innovation and cooperation, positive contributions can be made by facilities that are limited in resources.

At the conclusion of this presentation the learner will be able to:

- Describe how to initiate and improve antibiotic stewardship efforts.
- Analyze and report data.
- Identify new strategies to increase compliance with antimicrobial stewardship.
Breaking the Intergenerational Cycle by Preventing and Controlling Diabetes During Pregnancy

**LCDR Matthew Daab, MD, MPT, Family Physician, Tuba City Regional Healthcare Corporation**

**LCDR Anathea Edleman, MPH, RDN, LD, CDE, Director of Diabetes Clinical Services, Tuba City Regional Healthcare Corporation**

It has been well-established that the prevalence of diabetes is much greater among American Indian/Alaska Natives (AI/AN). To punctuate this, AI/AN youth aged 10-19 are 9 times more likely to have diabetes than non-Hispanic whites. The causes of this increased prevalence is multifactorial, including energy/caloric imbalance and socioeconomic causes. The prevalence of diabetes also is manifested in an increase in females with diabetes in pregnancy (DIP). The complications related to DIP are significant on mother and baby, both short and long-term, including a higher risk of developing obesity and overt Type 2 Diabetes among offspring. This pattern has been called the intergenerational cycle of diabetes.

To help address this huge public health crisis, Tuba City has developed a multi-faceted approach, including interventions by primary care providers, dietitians, Health Promotion Department, and Public Health Nursing. Interventions have included an emphasis on diabetes prevention through a Diabetes Prevention Program (DPP), aggressive glycemic control during pregnancy, and education/support to families at all stages of life.

Despite these efforts, many challenges remain. Investment among communities, local resources, and schools have been identified as additional strategies to attempt to reverse a troubling crisis among AI/AN.

At the conclusion of this presentation the learner will be able to:

- Identify the scope of the problem of diabetes, including diabetes in pregnancy, in the Native American population.
- Articulate the significance and implications of the intergenerational cycle of diabetes.
- Describe realistic strategies to help break the intergenerational cycle of diabetes.
Syringe Services Programs - A Critical Public Health Intervention Advancing the Health and Safety of Our Nation

CAPT Joshua Devine, PharmD, PhD, Health and Human Services (HHS) Regional Health Administrator, Region 5, Office of the Assistant Secretary for Health

CAPT Mehran Massoudi, PhD, MPH, Department of Health and Human Services, Regional Health Administrator, Region 6, Office of the Assistant Secretary for Health

Research demonstrates that comprehensive syringe services programs (SSPs) are safe and effective in helping prevent overdoses, reduce transmission of viral hepatitis, HIV, and other infectious diseases, and promote long-term recovery by providing access to sterile syringes and injection equipment and a myriad of health care services.

The HHS Office of the Assistant Secretary for Health Regional Health Administrators launched an effort in partnership with the Office of HIV/AIDS and Infectious Disease Policy and the Centers for Disease Control and Prevention designed to inform communities about this critical public health intervention and partner with state and local stakeholders to support the creation and expansion of SSPs. This session will highlight the initiative, and will showcase partnership opportunities and share progress to date with this work.

At the conclusion of this presentation the learner will be able to:

- Describe the intersection of substance misuse and infectious diseases, including viral hepatitis and HIV.
- Define what a comprehensive syringe services program (SSP) is, and explain how they help combat the opioid crisis and prevent the spread of infectious disease linked to injection drug use.
- Describe the partnership program the HHS Office of the Assistant Secretary for Health Regional Health Administrators are leading to support and raise visibility of SSPs.
PACE Sickle Cell Disease Workgroup (SCD): Increasing Health Professionals’ Understanding of Opioid Use for SCD Pain Management

**Lcdr Shondelle Wilson-Frederick, PhD, Technical Director, Centers for Medicaid and Children’s Health Insurance Program Services**

**Lt Lacreisha Ejike-King, PhD, MS, Program Analyst, U.S. Food and Drug Administration**

RADM Brett Giroir and VADM Jerome Adams championed improving the quality of care for people living with sickle cell disease (SCD), a genetic blood disorder that affects over 100,000 Americans. SCD causes the body to produce abnormally shaped blood cells that are unable to properly deliver oxygen to body tissues and leads to extraordinarily severe acute and chronic pain crises. Despite being discovered over 100 years ago, there are only three FDA approved therapies to prevent and treat SCD pain complications. Thus, opioids are commonly used as a pain management therapy for SCD-related symptoms.

Recent federal guidance on opioid dosing, may inadvertently impact this population which faces considerable challenges in obtaining optimal healthcare. In order to increase the quality of life and life-expectancy for people living with SCD, it is critical to increase awareness of the unique health needs of the SCD population.

The Prevention through Active Community Engagement (PACE) SCD Workgroup is a diverse team comprised of 36 officers (mainly clinical), representing 12 different agencies. Formed in August 2019, as a sub-group of the PACE Presentation Development Subcommittee, the SCD Workgroup has been developing a curriculum for current and future medical personnel (e.g. providers, healthcare staff, and students enrolled in health professional programs) to increase awareness of the SCD population, including opioid utilization as a pain management therapy. This presentation will highlight curriculum development activities underway among USPHS officers to increase understanding of a highly vulnerable population with limited pain management options.

At the conclusion of this presentation the learner will be able to:
- Present curriculum content to increase awareness of SCD.
- Describe inception of SCD Workgroup as a possible model for advancing policy as Public Health Service officers.
- Highlight collaborative efforts between the Workgroup and HHS partners to improve quality of care for people living with SCD.
U.S. Babies are Dying: How Fetal Infant Mortality Review Tells Us Why, When Statistics Cannot

**CDR Mary Emanuele**, BSN, RN, Senior Public Health Analyst, Health Resources and Services Administration (HRSA)

**CDR M. Sonsy Fermin**, LSCW, Branch Chief, HRSA

Fetal Infant Mortality Review (FIMR) utilizes evidence-based practices to coordinate and disseminate information and findings related to FIMR strategies for improving public health across the U.S. FIMR has 181 local programs with a presence in 28 states, Washington, DC, and U.S. territories. FIMR builds internal capacity and improves communities through prioritizing health, using a multi-tiered process of data collection, analysis, recommendations and response.

At the conclusion of this presentation the learner will be able to:

- Describe infant mortality, FIMR and why this matters to your community.
- Identify FIMR’s role in improving public health for communities across the nation.
- Explain the importance of FIMR information coordination and result sharing.

USPHS Commissioned Corps Officers: Driving Innovation to Find a Cure for Kidney Cancer at the National Institutes of Health

**RADM Richard Childs**, MD, Clinical Director and Principal Investigator, National Heart, Lung and Blood Institute (NHLBI)

**CDR Julie Erb-Alvarez**, MPH, CPH, Chief, Patient Engagement and Recruitment, NHLBI

RADM Richard Childs’ laboratory team discovered a human endogenous retrovirus (HERV-E) that is expressed in the vast majority of clear-cell kidney cancer tumors.

This HERV-E is being targeted in an experimental gene therapy study to genetically reprogram kidney cancer patients’ immune cells to specifically recognize and kill their tumors. This is an early phase (phase I) clinical trial that seeks to determine whether this gene therapy is safe and benefits patients.

At the conclusion of this presentation the learner will be able to:

- Describe the clinical research for treatment of renal cell carcinoma taking place at the NIH Clinical Center led by the NHLBI.
- Identify how Commissioned Corps Officers contribute to intramural medical research innovations at NIH.
- Describe the HERV-E Immunotherapy concepts developed and led by the laboratory of RADM Richard Childs.
Creation of a Skills-Based Hypertension Management Curriculum to Advance the Health of Inmates by Improving Blood Pressures and Health Literacy Knowledge

LCDR Kassidy Burchett, BSN, Quality Improvement Coordinator, Bureau of Prisons (BOP)
LT Valerie Favela, BSDH, Staff Dental Hygienist, BOP

How do you motivate a hypertensive inmate with uncontrolled blood pressure to take steps to reduce their blood pressure? This was the question that motivated our team to collaborate to reach inmates that had uncontrolled hypertension at Federal Correctional Institution El Reno. The incarcerated population suffer from a higher rate of chronic medical conditions to include a higher prevalence of hypertension. The BOP has established clinical goals for hypertensive inmates that were not being met by 40 inmates.

After evaluating the needs of the target population and considering available resources, it was determined that a Hypertension Management Curriculum was the best way to address the target population. The curriculum used a skills-based focus consisting of four classes, to include; what is hypertension, nutrition, physical activity, and benefits of medication. The goal was to improve inmates’ blood pressure values while improving the inmate’s health literacy related to the disease.

A pre- and post-test was also used to evaluate knowledge gained. At the beginning of the curriculum, 59 percent of inmates had systolic blood pressure values greater than 150. Upon conclusion of the curriculum, none of the inmates had systolic blood pressure values greater than 150. Even with limitations, these findings support that a Hypertension Management Curriculum can be successful in the BOP to help inmates meet BOP-established clinical goals.

At the conclusion of this presentation the learner will be able to:

- Describe a skills-based approach to teaching health literacy.
- Identify three ways that Health Information should be distributed to target populations.
- Identify ways to use collaborative efforts to implement a Hypertension Management Curriculum within communities/practice.
Unaccompanied Alien Children (UAC): Adhering to Child Welfare Best Practices

**CAPT Marivic Fields, LMSW, BCD, Senior Advisor for Child Well-Being and Safety, Administration for Children and Families**

The purpose of this presentation is to provide:

- A general understanding;
- Clarity on the apprehension;
- Case management; and
- How child welfare best practices are applied to this unique and vulnerable unaccompanied alien children population.

Despite the complexity and challenges that come with case management of unaccompanied alien children, the safety and welfare of the child should never be compromised.

Obstructive sleep apnea (OSA) is characterized by episodic upper airway collapse during sleep, leading to microarousals, poor sleep quality, and hypoxia. This contributes to fatigue, daytime hypersomnolence, and cognitive impairment. OSA is a risk factor for hypertension, cardiovascular disease, stroke, and type II diabetes. Prevalence has been estimated to be up to 7 percent; and the majority of cases are not diagnosed prior to surgery. Patients diagnosed perioperatively are at greatest risk for an adverse event. Perioperative patients with OSA have up to a 3-fold increased risk of cardiopulmonary complications. Opioids are commonly prescribed postoperatively; they can induce and exacerbate OSA in adults and children. Even in mild OSA, opioids can lead to hypoxia and sleep-disordered breathing, including central apneas. Timely identification of OSA and implementation of protective measures may help ensure an uneventful recovery.

Patients with OSA who undergo surgery are at increased risk for complications. It is therefore imperative to screen, diagnose, risk-stratify, and plan for appropriate monitoring and care.

At the conclusion of this presentation the learner will be able to:

- List key case management concepts and practices applied in the safe release of UAC.
- Describe the different child welfare best practices within the UAC program.
- Explain the different roles played by federal partners in the apprehension of a UAC.

Obstructive Sleep Apnea: A Population at Risk. Preparing for the Challenge!

**LCDR Joseph Fontana, MD, Senior Research Clinician, National Institute for Blood, Lung and Kidney, Pulmonary Branch**

**LCDR Brenda Holbrook, FNP, Nurse Practitioner, National Institutes of Health**

Obstructive sleep apnea (OSA) is characterized by episodic upper airway collapse during sleep, leading to microarousals, poor sleep quality, and hypoxia. This contributes to fatigue, daytime hypersomnolence, and cognitive impairment. OSA is a risk factor for hypertension, cardiovascular disease, stroke, and type II diabetes. Prevalence has been estimated to be up to 7 percent; and the majority of cases are not diagnosed prior to surgery. Patients diagnosed perioperatively are at greatest risk for an adverse event. Perioperative patients with OSA have up to a 3-fold increased risk of cardiopulmonary complications. Opioids are commonly prescribed postoperatively; they can induce and exacerbate OSA in adults and children. Even in mild OSA, opioids can lead to hypoxia and sleep-disordered breathing, including central apneas. Timely identification of OSA and implementation of protective measures may help ensure an uneventful recovery.

Patients with OSA who undergo surgery are at increased risk for complications. It is therefore imperative to screen, diagnose, risk-stratify, and plan for appropriate monitoring and care.

At the conclusion of this presentation the learner will be able to:

- Describe features of obstructive sleep apnea and list several disorders associated with it.
- Identify risk factors for OSA and employ validated screening tools.
- Apply risk-mitigation strategies for patients with OSA in the perioperative period.
Preventing for and Responding to Disasters Threatening Unaccompanied Alien Children Programs in 2019

**LCDR Alex Freiman, MPH, CPH, Senior Emergency Management Specialist, Administration for Children and Families (ACF)**

In 2019, approximately 70,000 Unaccompanied Alien Children (UAC) were referred to ~170 programs across the United States. Natural- and man-made disasters routinely threaten the ability of UAC programs to accept or care for UAC.

The Division of Planning and Logistics (DPL) within the ACF UAC program provides incident management and coordinates with internal and external stakeholders to help ensure UAC programs remain operational, UAC are safe, and response stakeholders stay informed during disasters. This presentation will describe how DPL plans for, monitors, and responds to threats to UAC program operations and will highlight real-world examples from 2019 including Hurricane Dorian and wildfires in California.

At the conclusion of this presentation the learner will be able to:
- Explain how DPL supports incident management for the UAC program.
- Explain how Geographic Information System (GIS) software informs UAC emergency response operations.
- Describe how the UAC/Division of Planning and Logistics engages internal and external stakeholders during emergency responses.

From First-in-Human Trial to Immediate Outbreak Response - The Science and Public Health Impact of the Ebola Treatment mAb114

**LCDR Martin Gaudinski, MD, Medical Director, Clinical Trials Program, VRC, Vaccine Research Center, National Institute of Allergy and Infectious Diseases, National Institutes of Health (NIH)**

Ebola virus is a lethal pathogen, which causes periodic outbreaks that threaten the health of local and global populations. Investigational treatments have been tested during previous Ebola outbreaks while trying to deliver care and curb an outbreak for a pathogen with no licensed treatments or vaccines. Recently, the Vaccine Research Center at the National Institutes of Health (NIH) developed a new Ebola treatment, mAb114, which was shown to be an effective treatment in the current outbreak in the Democratic Republic of the Congo (DRC). mAb114 is a monoclonal antibody that was isolated from a survivor of a previous Ebola outbreak, developed into a deliverable drug treatment, tested in animals exposed to Ebola, then healthy volunteers in a first-in-human trial at NIH, before being deployed in the international response to the 2018 North Kivu Ebola outbreak in DRC. Since being deployed, the NIH-led Pamoja Tulinde Maisha (PALM [together save lives]) clinical trial showed that mAb114 and another investigational treatment were saving lives and providing hope for the future of Ebola outbreak responses. The story of mAb114’s clinical development demonstrates the lifesaving potential of a strong linkage between groundbreaking science and a disaster response involving a wide array of partnerships.

At the conclusion of this presentation the learner will be able to:
- State the number of Ebola cases and mortality rate of the 2018 North Kivu Ebola outbreak.
- Summarize how mAb114 was shown to be safe enough to use in the current Ebola outbreak.
- Summarize the interim results of the PALM trial which showed mAb114 and another investigational agent reducing mortality in Ebola patients.
Disruptive Innovation | Focus on the Patient

**RADM (ret) Pamela Schweitzer, PharmD, Former Assistant Surgeon General**

**Mr. John Hill, MBA-HCM, CNED, Executive Vice President & General Manager, National Council for Prescription Drug Programs (NCPDP)**

The presentation will provide an overview of the various interoperable standards used in the healthcare industry as well as the process used for diverse healthcare stakeholders to work together for the common good. The result: consensus-based standards that connect healthcare electronically, streamline the system, and safeguard patients.

The authors/presenters will provide impact data and outline some of the challenges in adopting standards as well as some of the projects that NCPDP has been engaged on in an effort to impact the opioid crisis, address high drug costs and improve interoperability within the healthcare ecosystem.

At the conclusion of this presentation the learner will be able to:

- List three challenges to adoption of information technology standards.
- Outline the process for developing NCPDP standards.
- List four NCPDP strategic initiatives.

Incorporating a Clinical Pharmacist to Improve Quality of Rheumatology Care in American Indians and Alaska Natives

**LCDR Jeannie Hong, PharmD, BCPS, Rheumatology Specialty, Phoenix Indian Medical Center**

The Phoenix Indian Medical Center Rheumatology team provides care to patients from 11 Indian Health Service (IHS) sites located in 3 states. Due to the high cost of the biologics and biosimilars, required routine monitoring for efficacy and toxicity, and continuity of care, the American Indians and Alaska Natives (AI/ANs) often were unable to start or remain on the therapy. Since a rheumatology pharmacist joined the team, about 1440 patients successfully remain on a combination of 23 medications safely and effectively without incurring out-of-pocket costs after a protocol was implemented allowing the pharmacist to renew medications and order appropriate monitoring labs and imaging studies. During FY 2019, the rheumatology pharmacist was also able to increase third party payer reimbursement to $779,845.95, utilize patient assistance programs resulting in cost avoidance of $815,235.22, and help reduce the institution’s expense on the drug cost by $272,716.64 by overseeing a therapeutic switch from an expensive biologic drug to its less expensive biosimilar drug, all of which resulted in $1.8M in revenue/savings. Such a multidisciplinary team model is to be implemented at other IHS sites.

At the conclusion of this presentation the learner will be able to:

- Identify the 3 major barriers to healthcare delivery and access for the AI/AN patients with rheumatologic conditions.
- Describe the innovative model which allows for AI/AN patients to successfully overcome the barriers and start recommended therapies.
- Describe how the model can be applied at other IHS sites.
Improved Coordination, Collaboration, and Effective Communication with Our Stakeholder - Partners

**CDR Angela Hutson, MHA, BSN, RN, Program Manager, Assistant Secretary for Preparedness and Response**

The back-to-back 2017 major hurricanes that occurred that season taught us many valuable lessons. Eyes were opened to scenarios that had not been encountered before, especially with fragile patients who relied on dialysis treatment to sustain their life.

These unprecedented back-to-back island disasters exposed vulnerabilities and emphasized the importance of strengthening coordination, collaboration, and communication among stakeholders.

At the conclusion of this presentation the learner will be able to:

- Identify the importance of collaboration and effective communication between Federal, State, local government and non-governmental organizations (NGOs).
- Identify hindrances that sometimes prevent coordination, collaboration, and communication efforts.
- Identify “best practice” organizations and review their initiatives to gain insight into how they overcame hindrances and improved coordination, collaboration, and effective communication with their stakeholder - partners.

Human Trafficking: How You Can Make a Difference

**LT Jennifer Jabara, DNP, RN, CPN-BC, NE-BC, Nurse Educator, Nursing Professional Development, The National Institutes of Health**

Human trafficking is a global health emergency and a human rights violation that is estimated to affect 12-30 million victims. The United States is not immune to this modern day slavery. More than 200,000 American minors are identified as at-risk for trafficking. Victims of human trafficking experience a mosaic of physical and mental health concerns which result in interactions with healthcare providers. As such, healthcare professionals play an integral role in the identification of human trafficking and have a responsibility to partner in the eradication of this public health priority. Healthcare professionals are, unfortunately, ill-equipped to recognize human trafficking and are unprepared to activate resources to aid victims and transform the outcomes for generations otherwise lost to human trafficking. Healthcare providers may be the only professionals to interact with trafficking victims, so their ability to screen, treat, and refer those experiencing and at-risk for human trafficking is an essential piece to halting this epidemic. In a survey of trafficking survivors, 28 percent had come into contact with health care workers during the trafficking situation, but were not recognized as victims.

At the conclusion of this presentation the learner will be able to:

- Describe how human trafficking is a global and domestic problem from a public health perspective.
- List the patient indicators of potential trafficking and the appropriate responses to them including resources.
- Identify common misconceptions about human trafficking and its victims.
Advancing Program Policy to the Field: PACE through HHS Regional Health Offices

**CAPT Anna Gonzales, MPH, Deputy Regional Health Administrator-Region 5, Office of the Assistant Secretary for Health**

**CDR Matthew Johns, MPH, Regional Health Administrator-Region 9, Office of the Assistant Secretary for Health**

This presentation will outline a forward-leaning plan for how the Office of the Surgeon General (OSG) and the Office of the Assistant Secretary (OASH) for Health are executing high-level priorities through the 10 different Regional Offices. Presenters from Region 5 and 9 will detail some specific lessons learned and plans moving forward for Commissioned Corps teams and programs across the United States.

At the conclusion of this presentation the learner will be able to:

- Identify key contributing factors that have been successful in the execution of field teams and PACE (Prevention Through Active Community Engagement) Program efforts.
- Describe the PACE structure for Programs to advance the region-specific efforts for the OASH and the OSG.
- Explain new HHS-level initiatives such as Ending the HIV Epidemic and the Public Health Implications of Opioids/Substance Use Disorder and how PACE is a central component of meaningful solutions.

Sista Talks: Lessons Learned from Education/Outreach Efforts to End the HIV/AIDS Epidemic

**CAPT Shary Jones, PharmD, MPH, BCPS, Deputy Regional Health Administrator, Office of the Assistant Secretary for Health**

**Dr. Catherine Satterwhite, PhD, MSPH, MPH, Regional Health Administrator, Office of the Assistant Secretary for Health**

The “Ending the HIV Epidemic” Initiative aims to address the hardest-hit communities, defined geographically and by certain racial and ethnic groups. New infections are highest among minorities, and progress in reducing new infections has plateaued. To address barriers, including stigma, coordinated, culturally-relevant efforts are warranted. African American women are disproportionately impacted by HIV and were the focus of an outreach strategy comprised of health education with targeted interventions in places of worship, hair salons, and conferences. Efforts examined the effectiveness of place-based educational outreach to empower and mobilize women for collective action to address HIV/AIDS among African American women. The proposed presentation will describe methods used to educate African American women on stigma, interpersonal power, testing, and pre-exposure prophylaxis (PrEP) and review the evaluation results of these outreach efforts. Key findings on the perceptions and influence of communication outreach strategies and recommendations to guide future public health will be highlighted.

At the conclusion of this presentation the learner will be able to:

- Identify three public health challenges of the “Ending the HIV Epidemic: A Plan for America Initiative”.
- Describe factors that contribute to the elevated HIV rates among African American women.
- Explain four targeted interventions used to inform, educate, and empower African American women as it pertains to wellness, stigma, and the tools available to end the HIV epidemic.
The Holocaust Program: How to Use Experiential Learning to Build Emotional Intelligence

**CAPT Dwayne Buckingham,** PhD, LCSW, BCD, Strategic Education Manager, ICE Health Service Corps  
**LCDR Toya Kelley,** MD, Senior Clinical Education Consultant, Immigration Customs and Enforcement, Health Service Corps

This presentation will discuss how an innovative emotional intelligence program contributes toward achieving the mission of advancing the health and safety of our nation. On average, close to 60,000 refugees relocate to the United States annually. They come from diverse regions of the world and bring with them health risks that require medical attention in order to prevent the spread of disease. As political conversations regarding healthcare reform in America linger, much attention has focused on how immigrants have drained healthcare resources. Different views regarding immigration policy have caused thousands of individuals, including Public Health Service (PHS) officers to explore their cultural beliefs, biases and potential prejudices that could lead to the delivery of low-quality care to specific ethnic groups. To achieve the mission of developing emotional intelligence among PHS officers who are prepared to advance the health and safety of the nation, Medical Education and Development Unit personnel partnered with the Levine Institute for Holocaust Education and the U.S. Holocaust Memorial Museum and devised an experiential learning program entitled, “The Lessons of the Holocaust: A Medical Perspective.”

This program provides a platform for the development of vital skills that are needed for PHS officers and other leaders to operate effectively in high-tempo and emotionally charged environments such as the Department of Homeland Security and deployment settings. This program utilizes lessons learned from the Holocaust as a training and development opportunity that illustrates the dangers associated with abusing power, permitting prejudice and intolerance, and the critical importance of maintaining integrity in all situations.

At the conclusion of this presentation the learner will be able to:

- Describe how lessons from the Holocaust can be applied as a framework for emotional intelligence in challenging work environments.
- Explain the real-time benefits to understanding Emotional Intelligence to employee morale, self-awareness and workplace productivity.
- Assess the benefits of introducing the concept of experiential learning in faculty development.
Development of a Medical Education and Leadership Development Program for Healthcare Staff in a Law Enforcement Organization

CAPT April Kidd, PhD, MBA, RN, NEA-BC, Chief, Medical Education and Development Unit, Immigration Customs and Enforcement, Health Service Corps (IHSC)

The Medical Education and Development Unit (MEDU) at ICE Health Service Corps (IHSC) has developed an extensive and expansive healthcare staff continuing education and leadership development program for its 1,600 staff members over the past two years. This expansion of MEDU services has led to groundbreaking programs and services provided to staff and collaboration with internal and external federal entities. This presentation will provide a historical overview of the MEDU, detailed information of the expanded MEDU services and collaborations, and new policy initiatives that have had pivotal effects in growing and advancing the IHSC healthcare team who provide healthcare throughout the United States.

At the conclusion of this presentation the learner will be able to:
- Identify the MEDU vision, mission, and pillars.
- Describe key MEDU initiatives and programs and their impact on IHSC staff.
- Explain how MEDU developed and expanded its education and leadership program.

General Guidelines for Advanced Practitioners in Managing Sickle Cell Disease on Hydroxyurea in the Primary Care Setting

LCDR Ick Ho Kim, BSN, RN, CRNI, MSN, CRNP, NP-C, National Institutes of Health
LT Relia Atienza, RN, BSN, MSN, CRNP, NP-C, National Institutes of Health

Hydroxyurea (HU) evolved to be used for sickle cell disease (SCD) management and it has been the gold standard treatment for prevention of vaso-occlusive crisis. Despite over 30 years in which HU has demonstrated its safety and efficacy in SCD management, this drug is under-utilized. There are a variety of reasons for this including limited evidence-based guidelines and primary care providers that are not comfortable managing SCD patients on HU.

At the conclusion of this presentation the learner will be able to:
- Determine simplified monitoring, initiation and dose adjustment of HU based on National Heart, Lung, and Blood Institute evidence-based guidelines.
- Apply learned knowledge in the management of sickle cell disease patients on HU in the primary care setting.
- Evaluate the safety and efficacy of HU in the management of sickle cell disease patients.
Treatment Options for Nicotine Dependence from Electronic Nicotine Delivery Systems (ENDS): An Evidence-Based Overview and Successful Case Examples

**CDR Jing Li, PharmD, BCPS, CTTS, Specialty Services Pharmacy Manager, Phoenix Indian Medical Center**

**CDR Thomas Addison, PharmD, BCACP, CTTS, Advanced Practice Pharmacist I, Phoenix Indian Medical Center**

Electronic Nicotine Delivery Systems (ENDS) are still in their infancy and there is currently no published pharmacotherapy on helping ENDS or “vaping” users quit. The presentation will discuss the current epidemiology of ENDS, health issues with the use of ENDS, available support resources, and most importantly potential pharmacotherapy options to assist with quitting ENDS.

At the conclusion of this presentation the learner will be able to:

- Identify the various health issues associated with ENDS.
- Describe the support resources available for ENDS users.
- Apply the evidence-based approach to treating nicotine addiction.

Every Officer Can Be a Mindful Leader

**RADM (ret) Sarah Linde, MD, Executive and Leadership Coach**

In order to achieve the U.S. Public Health Service (USPHS) mission to advance the health and safety of our nation, officers in diverse but complementary fields bring their sharp minds, fit bodies, and serving spirits to their work every day. With integrity and excellence, each officer is expected to demonstrate leadership in environments which are volatile, uncertain, complex, and ambiguous. As one of four core values of the Commissioned Corps, leadership is an essential skill for each officer to intentionally develop, improve, refine, and practice on a daily basis over the course of one’s career.

In the face of volatility, uncertainty, complexity, and ambiguity, mindful leadership allows focus, clarity, creativity, and compassion. The simple framework presented here will equip officers to immediately become more effective leaders, achieve results for the organizations to which they are assigned, strengthen the Corps, and subsequently advance the health and safety of the nation.

At the conclusion of this presentation the learner will be able to:

- Describe five core competencies for effective leadership and organizational success.
- Identify five types of leadership conversations and two essential tools for every conversation.
- Define emotional intelligence, explain its role in leadership development, and demonstrate two practices that build emotional intelligence.
Regional Foot Print for HHS - Advancing the Health of the Nation through the OASH Regional Health Offices

CAPT Mehran Massoudi, PhD, MPH, HHS Regional Health Administrator, Region VI, Office of the Assistant Secretary for Health (OASH)

CDR Luz Rivera, PsyD, MS, MA Ed, PACE Regional Director, Region VI, OASH

OASH oversees the Department of Health and Human Services’ (HHS) key public health offices and programs, a number of Presidential and Secretarial advisory committees, 10 regional health offices across the nation, and the Office of the Surgeon General (OSG) and the U.S. Public Health Service (PHS) Commissioned Corps. OASH is committed to leading America to healthier lives. HHS Regional Health Administrators (RHA) serve as the senior public health officials in their regions and use their regional expertise and networks to catalyze public health action.

OASH has recently placed Regional Prevention through Active Community Engagement (PACE) Program Directors in three regional offices serving as the ASH Senior Advisor for Ending the HIV Epidemic (EHE) White House initiative. PACE Program members use their expertise in the field of HIV/AIDS and networks to more effectively address the regional components of the EHE Initiative.

The RHA and the PACE Program work collaboratively to advance the health and safety of the Region VI population through partnership with local, state, tribal, federal, and non-governmental organizations. RHAs work on behalf of the Secretary and HHS overall, and in partnership with other Federal Departments, to implement HHS-wide initiatives and priorities of the ASH such as ending the opioid crisis and promoting the use of syringe services as a harm reduction program, or the SG’s Advisory on Naloxone and Opioid Overdose.

The PACE Program works in eliminating EHE. In this presentation, we will outline various manners by which regional work is accomplished through key stakeholders with expertise engaged in meaningful discussions with at-risk populations in community-wide planning.

At the conclusion of this presentation the learner will be able to:

- List three of the ASH or SG priorities.
- List three ways that regional work is accomplished.
- List at least three types of key stakeholders necessary for effective community engagement.
Diabetes Door2Door Prevention Campaign

**LCDR Scott McGrew, MPT, CWS, Physical Therapist, Senior Therapist, Indian Health Service (IHS)**

The Diabetes Door2Door (D2D) Campaign is a successful partnership carried out by the Whiteriver Indian Hospital and the Community Health Representative Program of the White Mountain Apache (WMA) Tribe. This presentation outlines the success of diabetes patient identification and education in Indian Country.

Over the period of 12 months, the Diabetes D2D Campaign made stops in each community on the WMA Reservation, knocking on the door of every home on the reservation, providing blood sugar checks, referral for diabetes care and diabetes education.

This program contributed to meeting compliance for Government Performance and Results Act (GPRA) Good Glycemic Control Indicator that was previously out of compliance for Whiteriver IHS Hospital.

At the conclusion of this presentation the learner will be able to:

- Identify the components of a Diabetes Door2Door Campaign.
- List the objectives of a Diabetes Door2Door Campaign.
- Plan a Diabetes Door2Door Campaign.

Creating a Linkage between Arizona’s Emergency Medical Services Registry and Health Information Exchange.

**Mr. Terry Mullins, MBA, MPH, Bureau Chief, Arizona Department of Health Services**

**Ms. Anne Vossbrink, MS, EMS Data Manager, Arizona Department of Health Services**

This session will describe the need for and process to link a statewide Emergency Medical Services (EMS) registry to the statewide Health Information Exchange (HIE) in order to provide EMS agencies with outcome and disposition information. This information is necessary to provide EMS with real-time quality improvement information.

At the conclusion of this presentation the learner will be able to:

- Explain how a linkage between an EMS registry and an HIE can improve EMS agency performance improvement initiatives.
- Describe the process for creating a linkage between an EMS registry and an HIE.
- Identify unanticipated problems associated with linking event registries with patient registries.
Implementation of an Integrated Continuous Glucose Monitor Clinic

**LCDR Julie Niewoehner, PharmD, MHA, BCPS, Pharmacist, Indian Health Service**
**LT Joe Rorabaugh-Irwin, RD, Dietitian, Indian Health Services**

Diabetes is a widespread chronic medical condition across the United States. An interdisciplinary team comprised of a pharmacist, dietician, and behavioral health specialist came together to implement an integrated continuous glucose monitor (CGM) clinic in a primary care setting. The team explored the impact of a team-based approach to patient care, as well as the effect of CGMs on hemoglobin A1c, monitoring compliance, and disease state understanding.

At the conclusion of this presentation the learner will be able to:
- Describe the concept of continuous glucose monitoring.
- Explain the pros and cons of continuous glucose monitoring compared to traditional fingerstick.
- Interpret continuous glucose monitoring reports on a basic level.

Case Study of 2019 Salmonella Concord Outbreak in Imported Tahini resulting in the Food and Drug Administration’s First Foreign Supplier Verification Program (FSVP) Warning Letter and Addition to Import Alert

**LCDR Krista Ferry, Import Compliance Officer, U.S. Food and Drug Administration (FDA)**
**LT Mark Otto, MSPH, REHS, CP-FS, Environmental Health Specialist V, FDA**

In 2019, several reports of serious illness and hospitalization associated with an outbreak of Salmonella Concord were investigated by FDA, the Centers for Disease Control and Prevention (CDC), and State and local partners. A traceback investigation indicated that imported tahini product was the source of contamination. This led to a Foreign Supplier Verification Program (FSVP) inspection and the first ever FSVP Warning Letter and addition of the foreign firm to Import Alert.

At the conclusion of this presentation the learner will be able to:
- Identify elements of FDA’s FSVP.
- Describe the Salmonella Concord outbreak linked to Tahini.
- Describe FDA’s foodborne outbreak investigation process.
The Prevention through Active Community Engagement (PACE) Program - Developing a Latino Health and Wellness Campaign in the Atlanta Metro Area

**LCDR Rashid Njai, PhD, MPH, Epidemiologist, Centers for Disease Control and Prevention (CDC)**  
**LCDR Matthew Lozier, PhD, MPH, Epidemiologist, Centers for Disease Control and Prevention**

**BACKGROUND:**  
The National Prevention Strategy (NPS) was developed to guide the nation in how to attain a healthy lifestyle.

**DESCRIPTION:**  
The Prevention through Active Community Engagement (PACE) program was initiated to increase the effectiveness and national reach of the NPS. There are several at-risk communities who would benefit from tailored outreach and education from PACE. In 2018, Atlanta PACE started a Latino health and wellness campaign to address the needs of Latino youth and their families. From 2018-2019, the Latino health campaign consisted of direct youth outreach in local high schools as well as participation in the Annual Latino Youth Leadership Conference. Health and wellness topics included opioid prevention and awareness, vaping and e-cigarettes, healthy eating and mental health.

**LESSONS LEARNED:**  
During 2018-2019, Atlanta PACE held five events targeted at reaching the Latino young adult population in the greater Atlanta area. More than 15 officers have participated in and over 700 people have been impacted by these Latino health campaign events. Recruitment and participation among bilingual officers was critical to the success of the program to address language proficiency of student participant families.

**RECOMMENDATIONS:**  
Campaigns focused on vulnerable populations allow for a targeted approach that focuses on meeting at-risk groups where they are and addressing their relevant health concerns in context of their lived experience. Leads of similar campaigns should have expertise regarding the specific population and relevant health concerns as well as have proficiency in the native language of the group when applicable.

At the conclusion of this presentation the learner will be able to:

- Identify specific ways to tailor a culturally specific program using PACE curriculum and other approved content.
- Describe the specific characteristics to develop a successful PACE program for adolescents and emerging adults.
- Explain lessons learned from working in multiple school settings and different groups of students in diverse academic settings.
The Center for Disease Control and Prevention (CDC) Tools to Improve Accuracy and Timeliness of Mortality Reporting during Disasters

CAPT Rebecca S Noe, MN, MPH, FNP-BC, Epidemiologist, Centers for Disease Control and Prevention (CDC)

Accurate and timely death reporting is integral to any effective public health emergency response. CDC found underreporting of disaster-related deaths when reviewing death certificates after recent disasters. Missing from the certificate is any reference of the incident, which leads to challenges when adjudicating the number of deaths. The possible reasons that certificates are missing a reference of the incident are that certifiers 1) underappreciate the importance of including the incident details/terms on the certificate, 2) use different case criteria for attributing a death to a disaster, and 3) lack sufficient scene investigation information to attribute death to the incident. To address these CDC has 1) evaluated the utility of a disaster specific alert/flag in state-based electronic death registration systems (EDRS) as a reminder of the importance of including incident term(s) on the certificate, 2) developed a disaster-related death certificate completion guide which provides case definitions and a framework to determine if a death is associated with a disaster, 3) developed a disaster-related death scene investigation toolkit, and 4) created a checklist to identify vulnerabilities and assess the awareness, consideration, and inclusion of these aforementioned tools into their jurisdiction’s existing processes to capture/report mortality data after a disaster. The use of an alert/flag in EDRS, standardized case definitions, and comprehensive scene investigation data can improve the accuracy/timeliness of death reporting during a disaster. Public Health Service officers in response/clinical positions could review the disaster reporting processes in their facilities and consider engaging public health partners to include these tools into protocols which would improve the ability to track deaths after a disaster.

At the conclusion of this presentation the learner will be able to:

- Identify 3 key mortality resources and tools that will enhance or sustain professional work or volunteer roles in support of, responding to, and recovering from disasters and other public health emergencies.
- Articulate the known gaps in disaster-related mortality tracking and reporting.
- Explain how to use the new CDC tools to assess vulnerabilities to response readiness of disaster-related mortality tracking and reporting in their facility or among stakeholders.
Advancing Effective Domestic HIV Prevention Strategies in the South through Community Partnerships

**CDR Adeoye Oguntomilad, BDS, MPH, Region IV PACE Director, Department of Health and Human Services (HHS), Office of the Assistant Secretary for Health (OASH)**

**LT Neelam Gazarian, PharmD, Deputy Director Region IV PACE, HHS, OASH**

**BACKGROUND:**
In the United States, over 700,000 American lives have been lost to HIV since 1981. The HIV incidence reduced from 130,000 in the early 1980s to steady incidence of about 40,000 from 2013-2017 with a projection of additional 400,000 new infections in 10 years if current resources and intervention strategies are sustained. The South accounts for 52 percent of all new infections in the U.S.

**METHODOLOGY:**
To proactively address the ongoing HIV public health crisis, a new collaborative approach is implemented across U.S. government agencies to reduce new HIV infections by 75 percent in 5 years and by 90 percent by 2030.

This initiative is implemented through 4 pillars: Diagnose, Prevent, Treat and Detect. These pillars are established on active community engagement for relevant and innovative interventions. HIV Prevention Through Active Community Engagement (PACE) Officers were placed in 3 regions to facilitate and spearhead this initiative. Region 4 supports the Southeastern states that assume a higher burden of HIV. PACE officers conducted outreach to community-based organizations representing communities impacted by HIV to determine the granular trends, high risk behaviors, resource gaps, impact of social determinants of health (SDH) and the level of community partnerships in the counties identified for phase 1 activities.

**RESULTS:**
Preliminary results have produced common themes, gap analysis, impact of SDH and opportunities for strategic partnerships for effective and sustained interventions.

**CONCLUSION:**
Active community partnerships to advance relevant HIV interventions in communities impacted by HIV and innovations to overcome SDH is critical to reducing new HIV incidence in the U.S.

At the conclusion of this presentation the learner will be able to:
- Describe the five common themes impacting the HIV epidemic in the Southern region of the U.S.
- Analyze the four social determinants of health impacting HIV and the innovative approaches to overcome them.
- Assess three types of strategic community partnerships for effective and sustained response to the HIV epidemic.
Guidelines for preventive services for adults have been recommended by a number of organizations, including the U.S. Preventive Services Task Force (USPSTF) and the Centers for Disease Control and Prevention (CDC)'s Advisory Committee on Immunization Practices (ACIP). Still, greater use of proven clinical preventive services in the United States could avert the loss of millions of life-years and result in cost savings for individuals and families. However, adoption and implementation by providers and uptake by patients of evidence-based preventive practices vary for multiple reasons. Demographic and geographic disparities in preventive service use are significant. Such disparities warrant further investigative research into barriers that may contribute to inadequate implementation of evidence-based preventive guidelines among minority and health disparity patients and the health care providers who serve them.

The NIH convened a Pathways to Prevention Workshop with multidisciplinary and multisector participants in June 2019 to assess the available scientific evidence on achieving health equity in the use of clinical preventive services for three leading causes of death: diabetes, heart disease, and cancer. The goal of the workshop was to identify research gaps, identify methodological and scientific weaknesses, suggest research needs, and move the field forward through an unbiased, evidence-based assessment of the public health issue. This presentation will provide the results of the workshop and implications for future research.

At the conclusion of this presentation the learner will be able to:

- List three barriers to the adoption and implementation of clinical preventive services in healthcare settings that contribute to health disparities.
- Describe three interventions that have been proven effective in increasing uptake of recommended clinical preventive services by disadvantaged patient groups.
- Identify the role of implementation science in increasing clinical preventive services.
Stopping Infections Before They Happen Through Safer Reprocessing

**CDR Kenneth Phillips, PhD, Biofilms Research Group Leader, U.S. Food and Drug Administration (FDA)**

There are over 75 million endoscopic procedures in the United States annually for essential procedures ranging from colonoscopy to treatment of pancreatic cancer. Antibiotic resistant bacterial infections related to endoscope use continue to occur, making improved cleaning and disinfection procedures (called “reprocessing”) essential. We have developed a tool called FDA QC-ER to detect miniscule amounts of contamination, much lower than anything commercially available. It helps hospitals maintain the quality (quality control) of their endoscope reprocessing.

At the conclusion of this presentation the learner will be able to:

- Explain why endoscopes are essential medical devices, why their safe and effective use affects all Americans, and the challenges associated with reprocessing of endoscopes.
- List potential reasons for endoscope’s association with antibiotic resistant bacterial infection outbreaks, and describe the FDA QC-ER approach and explain why it is a promising new solution to quality control of endoscope reprocessing.
- Describe how results obtained to-date with FDA QC-ER have helped answer questions about factors impacting endoscope reprocessing, and the next steps to expand testing of FDA QC-ER and its potential use to help prevent outbreaks nationwide.

Making Data Matter - A Strategic Monitoring and Evaluation Framework for Emergency Response

**Dr. Holly Fisher, PhD, MS, Evaluation Lead, CDC**

**CAPT Bobby Rasulnia, PhD, MPA, MPH, CHES, Deputy Director, Risk Management and Operational Integrity Centers for Disease Control and Prevention (CDC)**

Leaders need access to timely, quality data during response operations. In this session, we describe: 1) a strategic framework for monitoring and evaluating CDC emergency response operations to improve data sharing/decision-making, and 2) a pilot project to identify data priorities during emergencies. These efforts will facilitate operations and mission success.

At the conclusion of this presentation the learner will be able to:

- Explain a new framework for monitoring and evaluating scientific and operational support activities during an emergency response event.
- Identify data-related strategies to improve situational awareness and decision-making during an emergency response event.
- Describe various levels of the monitoring and evaluation plan.
DeployCDC: Streamlining Communication for Centers for Disease Control and Prevention (CDC) Responders Across the Deployment Lifecycle

**CAPT Bobby Rasulnia** PhD, MPA, MPH, CHES, Deputy Director, Risk Management and Operational Integrity Centers for Disease Control and Prevention (CDC)

**Dr. Sachiko Kuwabara**, PhD, MA, Director, Risk Management and Operational Integrity, CDC

DeployCDC is a one-stop-shop designed to more effectively recruit, train, and communicate with CDC Responders. It serves staff at any point in the response/deployment lifecycle and contains both evergreen and incident-specific information. This scalable, replicable solution also provides valuable data on engagement of the agency’s workforce related to emergency response.

At the conclusion of this presentation the learner will be able to:

- Describe how the DeployCDC website as a resource is replicable and scalable at the local, state, tribal, or national level.
- Identify key resources for responders throughout the deployment lifecycle.
- Describe capabilities and capabilities of DeployCDC that add value to an organization.

Building Effective Partnerships at the Community Level

**CDR Luz Rivera**, PsyD, MS, MA Ed, Region VI Prevention Through Active Community Engagement (PACE) Director, Office of the Assistant Secretary for Health (OASH)

This session will explain an all-inclusive, multilevel strategy to build strong working relationships with community partners.

At the conclusion of this presentation the learner will be able to:

- Explain behavioral elements impacting partnership development.
- Describe a multilevel community partnership strategy.
- Identify how to insure that all key players are heard.
Advancing the Health and Safety of Our Nation by Developing Effective and Culturally Relevant Partnerships

**CDR Luz Rivera**, PsyD, MS, MA Ed, Prevention Through Active Community Engagement (PACE) Regional Director, Office of Assistant Secretary for Health (OASH)

**LCDR Rodrigo Chavez**, MA, HSA, PACE Regional Deputy Director, OASH

The presentation will provide an overview of a partnership development strategy and needs assessment of communities most affected by HIV. It required a two-system approach: (1) one-on-one interviews with individuals living with HIV, those at risk of acquiring HIV and their direct service providers, and (2) interviews with community stakeholders, State governments and National Organizations. This allowed us to contrast and compare findings in order to assist in the creation of a comprehensive plan assuring representatives from all demographics within the community were sitting at the table to discuss the plan for ending the epidemic by the year 2030. The strategy is based on data obtained from qualitative analysis and one-on-one community engagement.

At the conclusion of this presentation the learner will be able to:
- Describe the strengths and challenges of building collaborative partnerships.
- Design strategies with the potential to enhance the health behaviors of vulnerable populations.
- List social determinants of health and disparities that influence community participation.

Case Studies on Tuberculosis (TB) Detection and Treatment

**CDR Tara Ross**, BSN, NHDP-BC, South Central Region Quality Improvement/Infection Prevention Coordinator, Federal Bureau of Prisons

**LCDR Jason Kopera**, BSN, MBA, North East Regional Quality Improvement/Infection Prevention Coordinator, Federal Bureau of Prisons

TB is the great masquerader-mimicking other diseases, disproportionately impacting the correctional setting, and challenging correctional health care staff. This presentation aims to enhance your knowledge regarding diagnosis and treatment of TB and the importance of community TB partnerships. It will include real-life TB case studies and increase knowledge of this complicated disease.

At the conclusion of this presentation the learner will be able to:
- Identify clinical cases that may represent active TB.
- Properly manage clinical cases that are being worked up for TB.
- Describe necessary reporting requirements and discuss considerations for outside coordination for patients with TB.
Opportunities and Collaboration Efforts to End the HIV Epidemic - PACE Region 9 Best Practices

**CDR Michelle Sandoval-Rosario,** DrPH, MPH, Prevention Through Active Community Engagement (PACE) Director Region IX, Office of the Secretary for Health (OASH)

**LCDR Jose Ortiz,** MPH, PACE Deputy Director Region IX, OASH

As part of the new “Ending the HIV Epidemic: A Plan for America,” the Office of the Assistant Secretary for Health (OASH) has developed three teams in region 4, 6, and 9 as part of the Corp’s Prevention through Active Community Engagement (PACE) program. The primary focus of the regional PACE teams is to support the new initiative. The PACE team in region 9 covers three states (Arizona, California, Nevada), and ten counties.

The presentation will provide an overview of the activities region 9 has been engaged in, collaboration efforts, strategies for developing effective partnerships to address challenges for ending the HIV epidemic and opportunities for enhancing best practices.

At the conclusion of this presentation the learner will be able to:

- Describe the role of the PACE team in region 9.
- Illustrate the burden of HIV in region 9, resources, and partnerships.
- Describe region 9 community engagement activities, challenges, best practices, and lessons learned.

USAID/OFDA Pharmacists Emerging Role in One Health Disaster and Humanitarian Crisis Response

**CAPT (ret) Lisa Tonrey,** MHA, RPh, PhC, FAPhA, Pharmacist and Medical Commodities Technical Advisor, USAID/OFDA

**CDR (ret) Mark Sellers,** PharmD, BCPS, CPH, Pharmacist and Medical Commodities Technical Advisor, US Agency for International Development - Office of Foreign Disaster Assistance (USAID/OFDA)

USAID/OFDA’s mandate is to lead and coordinate the United States government’s response to disasters overseas. As part of this disaster response, OFDA and its partners have adopted a One Health approach for the provision of relief services to include livestock assistance. This presentation will discuss OFDA’s pharmacists’ role and technical guidance in partnering with OFDA partners in implementing innovative approaches to develop best practice guidelines.

At the conclusion of this presentation the learner will be able to:

- Explain the role that USAID and OFDA plays in international humanitarian responses.
- Describe how pharmacists play a significant role in the development, application, and observance of an essential medicines list for both human and veterinary use for optimal disaster response.
- Explain how pharmacists are essential to international disaster response and humanitarian crises through partnerships with other organizations in addressing the One Health model.
The American Indian Medical Home: Building Sustainable Patient-Centered Medical Homes for Native Americans

Ms. Leslie Short, MPH, Integrated Services Administrator, Arizona Health Care Cost Containment System (AHCCCS)
Dr. Eric Ritchie, MD, Clinical Director, Chinle Service Unit, Indian Health Service

American Indian/Alaska Natives enrolled in the American Indian Health Program (AIHP), AHCCCS’ Fee-for-Service program, receive their care largely through Indian Health Service (IHS) and Tribal 638 facilities that do not have administrative dollars to support case management functions or call lines to assist in coordinating member care, as managed care organizations do. AHCCCS proposed a value-based care model that would incentivize IHS/638 facilities to take actions proven to improve health outcomes and lower healthcare costs, and that support an American Indian Medical Home (AIMH) Program, including Primary Care Case Management (PCCM), diabetes education, care coordination, and participation in the state Health Information Exchange (HIE), to members enrolled in AIHP. The AIMH program aims to help address health disparities between American Indians and other populations in Arizona by enhancing case management and care coordination.

Six IHS/638 facilities achieved the requirements to become an AIMH, half of which achieved bi-directional participation in the state HIE, improving the way in which they are able to share and access member information for best care. One in five AIHP members is now enrolled in an AIMH. The funds received from enrolling members into an AIMH have been reinvested in activities supporting the medical home including enhanced case management, health coaching, and care coordination services for AIHP members.

The AIMH program is a unique and innovative model for incentivizing and providing a path forward for IHS/638 facilities to provide services that are proven to improve health outcomes and lower costs.

At the conclusion of this presentation the learner will be able to:

• Describe the components of an effective AIMH model.
• Explain the impact of a state HIE system in enhancing primary care case management under the AIMH model.
• Describe the benefits of a system-improved approach through case management and care coordination.
Senior Commissioned Officer Student Training & Externship Program (SRCOSTEP) “How the Best Kept Secret, Keeps Getting Better”

LCDR Stephen Sizemore, DNP, MSN, BSN, FNP-BC, Advanced Practice Provider, Bureau of Prisons (BOP)

LT Darion Smith, BASDH, RDH, Staff Dental Hygienist, BOP

There are many agencies that provide health care services to populations that are typically undeserved. The increasing challenge has been finding and retaining qualified staff who have answered the call of service at these agencies for the benefit of those undeserved. Simultaneously, there are thousands of students graduating from health care programs with enormous amounts of debt constantly in search of a career that is sustainable for all of their life goals and living needs. We intend to demonstrate how to bridge the gap between these two issues by highlighting the SRCOSTEP program and how to create a recruitment team that will help sustain long term growth.

At the conclusion of this presentation the learner will be able to:

• Explain the background, purpose, and sustainability of SRCOSTEP.
• Illustrate how to create, implement, and maintain a recruitment team committed to answering the call of the missions of Public Health Service and other related agencies.
• Identify implications and conclusions a SRCOSTEP can have on the Corps, OPDIV/StaffDIV agencies, officers, and underserved populations.

A Brief History of the Center for Tobacco Products and What Engineers Do There

CDR Samantha Spindel, PhD, MEng, Engineering Branch Chief, U.S. Food and Drug Administration (FDA), Center for Tobacco Products (CTP)

This session will describe the purpose of the FDA’s CTP and help attendees understand the type of work CTP conducts and how engineers work toward this mission.

At the conclusion of this presentation the learner will be able to:

• List the four major activities that Engineers are involved with at the CTP.
• State some engineering design parameters that are considered for various tobacco products.
• Describe how the FDA makes determinations of substantial equivalence.
Veteran’s Health Administration and U.S. Food and Drug Administration (FDA) Partnering to Advance Understanding and Safety of Opioids in Minority Veterans

Dr. Suzanne Tamang, PhD, Assistant Faculty Director, Stanford University/Department of Veterans Affairs
Dr. Christine Lee, PharmD, PhD, Health Programs Coordinator, U.S. Food and Drug Administration (FDA) Office of Minority Health and Health Equity

The Opioid Epidemic is driven by increased opioid prescriptions and deaths. The Veterans Affairs, FDA, and Stanford University partnered to look at opioid use and serious adverse events among minority veterans.

At the conclusion of this presentation the learner will be able to:

• Describe differences in opioid use and adverse events between male and female veterans.

Challenging the Primary Care Model: Integrating Physical Therapy (PT) services in Primary Care (PC).

CDR Jennifer Turner, PT, DPT, OCS, FAAOMPT, Physical Therapy Services, Indian Health Services (IHS)/Cherokee Nation
LT N. Kyle Mann, PT, DPT, OCS, ATC, Senior Physical Therapist, IHS/Cherokee Nation

The integrated model of PT in Primary Care can be a highly effective, safe, and cost-effective primary care model for healthcare delivery systems. DPTs are specifically trained to effectively and efficiently treat both acute and chronic neuromusculoskeletal disorders and prevent the use of high risk opioid treatment. This in turn can be a substantial cost savings to a healthcare delivery system.

PT in Primary Care is not novel and has been shown to be an efficient and effective concept that should be earnestly considered in Indian Health Service outpatient facilities.

At the conclusion of this presentation the learner will be able to:

• Identify the obstacles and opportunities of integrating PT in Primary Care.
• Describe three advantages to the patient with successful Primary Care integration.
• Describe three advantages to the healthcare delivery system with successful Primary Care integration.
Integration of Advanced Practice Pharmacist-Clinicians into a Patient-Centered Medical Home Model of Patient Care

LCDR L. Michelle Vaughn. PharmD, BCACP, BC-ADM, CDE, Advanced Practice Pharmacist, Indian Health Service (IHS) - Whiteriver Service Unit

LCDR Gina Sutedja, PharmD, BCPS, NCPS, Advanced Practice Pharmacist, IHS - Whiteriver Service Unit

The innovative Pharmacy Chronic Disease Therapy Management (CDTM) Clinic at Whiteriver Service Unit (WRSU) recently transitioned to an interdisciplinary Patient-Centered Medical Home (PCMH) model. In this new model of care, there is increased collaboration between clinical pharmacists, primary care providers, specialists, Clinical Care Coordinators (CCCs), diabetic educators, case managers, and Community Health Representatives (CHRs).

The change in the pharmacy practice model improves access to care, enhances the quality of care delivered, and creates unique opportunities for community outreach.

At the conclusion of this presentation the learner will be able to:

• Describe PCMH team-based care implementation at WRSU.
• Describe potential benefits related to staff workload, clinical measures, and patient care utilization rates resulting from transition from siloed services to integrated care model.
• Explain challenges and lessons learned regarding successful pharmacist-clinician integration into PCMH model of care.

Pills, Patches, Rings and LARCs: How Pharmacists Can Navigate the Road to Expand Contraception Care

LCDR Thalia Vega, PharmD, BCACP, Clinical Pharmacist, IHS- Phoenix Indian Medical Center

This presentation is designed to educate pharmacists about the importance of contraception care for women and demonstrate the ways in which pharmacists can help expand contraception care and the scope of practice for pharmacists in this field.

At the conclusion of this presentation the learner will be able to:

• Demonstrate proper use of the US MEC and US SPR.
• Determine contraceptive options for special populations.

• Apply evidence-based practices for pharmacist-managed birth control clinics.
Redefining Pain and Addiction: Creation and Metrics of a Statewide Curriculum

Lisa Villarroel, MD, MPH, Medical Director, Division of Public Health Preparedness, Arizona Department of Health Services

Aram Mardian, MD, Chief, Chronic Pain Wellness Center, Phoenix Veterans Administration Health Care System

In response to a declared Public Health Emergency, The Arizona Department of Health Services brought together the Deans and Curriculum Representatives from every medical, dental, naturopathic, podiatry, nursing practitioner and physician assistant school in the state to develop one core Arizona Pain and Addiction Curriculum (www.azhealth.gov/curriculum).

The Arizona Pain and Addiction Curriculum's vision is to redefine pain and addiction as multidimensional, public health issues. It has been implemented in programs across the nation, due to its content that establishes a link between pain and addiction, focuses on destigmatization, uses a macro- to micro-perspective to pain and addiction (the sociopsychobiological approach), includes the influence of pharmaceutical industry and stresses the need for clinician and system introspection. It is modern, evidence-based, and in line with national trends set by the National Pain Strategy and Institute of Medicine.

In the first year of curriculum implementation, a statewide survey was administered to all first-year and last-year trainees which found that trainees who were prepared to treat someone with chronic pain were more likely to be in their last year of training. In contrast, there were not significant differences between first-year and last-year trainees in response to most questions about biases. These metrics will continue to be collected for the next several years, and stresses the need for continued curricular implementation.

This process represents the first time a health department has facilitated such a wide-sweeping, transformational approach to education on pain and addiction in the country.

At the conclusion of this presentation the learner will be able to:

• Describe a public-health drive statewide educational approach to the opioid epidemic.
• Create a similar process for developing an evidence-based and modern curriculum on pain and addiction for the participant’s program or state.
• Evaluate whether learners in the participant’s state would have similar trends in knowledge, attitudes and plans around pain and addiction, and how that should impact health educational efforts.
The Department of Health and Human Services (HHS) Center For Health Innovation

**RADM Paul Reed, MD, Deputy Assistant Secretary (Medicine and Science), OASH**

**CAPT Meena Vythilingam, MD, Director, OASH**

HHS lacks the ability to holistically analyze the biomedical ecosystem and find opportunities to strategically leverage its authorities to accelerate the translation of health innovation to meaningful public health outcomes.

The Center for Health Innovation (CHI) is a new function within the OASH, which builds an enterprise-level view of the health innovation ecosystem and collaborates with stakeholders across HHS, government, medicine, industry, and patients to better understand innovation needs and to help remove or navigate real and perceived barriers to innovation while maintaining high public health standards.

In collaboration with the Milken Institute, CHI launched the Innovator’s path to understand the process for clinical innovation from an enterprise level across HHS, identify opportunities to make the process more efficient and customer-oriented, and to measure the impact of policy or process changes on the speed of clinical innovation.

Innovator’s Path components include: 1. The Innovation Landscape Analysis to develop an empirical model intended to identify Critical Innovation Targets (CIT) that have the greatest need or greatest opportunity for public health impact. 2. A scorecard to measure the performance of the innovation ecosystem, that would provide insight into our own system's performance, but also help understand how the American system compares internationally and 3. The Journey Mapping project which provides a full understanding of the current process for clinical innovation from the earliest stages of discovery through clinical trials, U.S. Food and Drug Administration review, payment, and into the hands of doctors and patients.

At the conclusion of this presentation the learner will be able to:

- Describe the rationale for an HHS CHI.
- Identify components of the critical innovation targets.
- Describe the Innovator’s Path.
The Durable Medical Equipment (DME) Debacle:
Streamlining Equipment Delivery to Patients

LT Krista Watson, PT, DPT, Physical Therapist, Indian Health Service

The time it takes for patients to receive equipment such as walkers, wheelchairs, and power wheelchairs is sometimes too late, preceded by falls or mortality. This presentation is based on a 1-year problem-solving “Plan, Do, Study, Act” (PDSA) on streamlining the DME ordering process in an isolated hardship healthcare facility that was performed to decrease fall risk and improve patient care. Recommendations for program evaluation and policy changes will be included.

At the conclusion of this presentation the learner will be able to:

• Construct templates that meet Center for Medicare and Medicaid Services documentation requirements for DME ordering.
• Design a process map to include key stakeholders involved in ordering DME.
• Develop policies and procedures that improve efficiency and decrease equipment delivery time to patients.

Evaluating Hantavirus Employee-Based Risk-Reduction Practices in a National Park in the United States

CAPT Matthew Weinburke, DrPH, MPH, MCHES, REHS, MLT, Training Branch, Commissioned Corps Headquarters

This presentation will discuss a qualitative research study focused on reducing the risk of human hantavirus infection and outbreaks within a National Park in the United States by evaluating seasonal and year-round Yosemite National Park (YNP) employees whose jobs expose them to occupational hantavirus pulmonary syndrome (HPS) risks, while applying the theoretical principles of grounded theory and the health belief model within an action research framework.

At the conclusion of this presentation the learner will be able to:

• Explain the epidemiology and prevalence of HPS in YNP and the United States.
• Describe the barriers for employees not carrying out the proper HPS risk-reduction practices.
• Describe the YNP employees’ recommendations of what should be done to reduce the risk of HNP in YNP.
New Ship Construction = Decreased Vomiting and Diarrhea?

LCDR Beth Wittry, MPH, REHS, Environmental Health Officer, Centers for Disease Control and Prevention (CDC)

LCDR Keisha Houston, DrPH, Senior Epidemiologist, CDC

The CDC's Vessel Sanitation Program (VSP) became officially involved with new ship construction in 1986, when the first overseas consult occurred. VSP was instituted in 1975 following shipboard outbreaks of shigellosis and typhoid fever in the United States, which occurred in 1970 and 1973, respectively.

Historically, ships have been implicated in outbreaks since the Middle Ages, when plague was transmitted throughout Europe, on trade routes. Today, the transmission of disease continues through travel by airplanes, trains, and ships.

Over the past two decades shipboard transmission of acute gastroenteritis (AGE) has shifted from common-source exposures to person-to-person spread. Between 2007 and 2018 the number of maritime AGE cases ranged between 12,110 and 19,692 cases per year. The VSP uses an integrative approach to prevent the introduction of AGE into the United States.

Requirements concerning new ship construction and operational procedures are responsible for the control and prevention of common-source outbreaks. New ship construction addresses the previously built-in issues that presented health risks to the public. By removing these issues and building these problems out during new construction, the waterborne and foodborne diseases due to common-source outbreaks were significantly reduced.

The shift to person-to-person spread of AGE, as well as understanding fomite transmission, involved interventions targeting behavioral habits to encourage handwashing and requiring accessible handwashing stations in self-service food outlets in new ship construction. This presentation will evaluate how these interactive components along with ship construction impact AGE levels on cruise ships.

At the conclusion of this presentation the learner will be able to:

- Explain the historical background of new ship construction and its impact on public health.
- Describe how public health components in the VSP Construction Guidelines were key in the reduction of acute gastroenteritis.
- Determine how technology and public health interventions play a role for the cruise ship industry and other industries.
Occupational/Environmental Exposures in Active Duty Personnel Leading to Adverse Health Outcomes as Veterans

**RADM Dawn Wyllie, (ret) MD, MPH, Wyllie Consulting**

This presentation will provide an awareness of occupational/environmental exposures that service members may come in contact with that can impact their health, acutely and even years later.

At the conclusion of this presentation the learner will be able to:

- Describe 3 clinical conditions related to active duty occupational/environmental exposure.
- List 3 toxic chemicals found on work sites, military installations/EPA superfund sites and 3 routes that toxic chemicals enter the body.
- Identify 3 complications of an acquired hematologic disorder.

Pharmacists on the Opioid Crisis Frontline: The Impact of Pharmacists in a Chronic Pain Management Clinic

**CDR Hillary Duvivier, PharmD, BCPS, NCPS, Director of Pharmacy Services, Indian Health Service (IHS)**

**LT Fengyee Zhou, PharmD, NCPS, Pharmacist, IHS**

An estimated 50 million Americans have chronic pain with a higher incidence reported among the American Indian/Alaska Native (AI/AN) population. In addition to significant morbidity including back pain, arthritis, and neck pain, AI/ANs reported high rates of illicit and prescription drug misuse and one of the highest rates of overdose deaths.

These conditions suggest a need for intensified management of chronic pain within Indian Health Service (IHS) facilities. This presentation will explore two distinct challenges of a pain management clinic: starting the service and identifying impacts a pharmacist can make in the clinic.

At the conclusion of this presentation the learner will be able to:

- Describe the need for intensified pain management services in an Indian Health Service setting.
- Identify measurable goals for a pain management clinic.
- Summarize the interventions and impacts a pharmacist can make in a pain management clinic.
Innovative Use of Technology to Ensure Patient Safety in the Behavioral Health Setting Within a Rural Healthcare System

**CDR Abigail White**, PharmD, BCACP, Clinical Informaticist, Cherokee Indian Hospital

**CDR Christopher McKnight**, PharmD, BCPS, Critical Care Pharmacy Lead, Cherokee Indian Hospital

The provision of behavioral health, specifically treatment of substance use disorder, occurs in a variety of complex settings: ambulatory, inpatient, and residential. The complexity of integrating different environments into one healthcare system resulted in the development of unique applications of existing clinical software and hardware technologies. Attendees will learn how one site integrated behavioral health into medical care while ensuring patient safety and continuity of care.

At the conclusion of this presentation the learner will be able to:

- Describe the continuum of behavioral health care services at Cherokee Indian Hospital.

- List three software systems used in the expansion of behavioral health services.

- Describe how software integration may be used to improve future patient care outcomes.

- List three software systems used in the expansion of behavioral health services.

- Describe how software integration may be used to improve future patient care outcomes.
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CAPT (ret.) Jacqueline Rychnovsky
Executive Director
PHS Commissioned Officers Foundation for the Advancement of Public Health
P.O. Box 189
Cheltenham, MD 20623
(301) 731-9080

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