

Measuring and Addressing Substance Misuse DoD-Wide



PRESENTERS



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DISCLOSURE STATEMENT



Presenter's has no relevant financial or non-financial interests to disclose.

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Commercial Support was not received for this activity

OBJECTIVES



- Describe how substance misuse affects military readiness and resiliency.
- Outline gaps in understanding and assessing the impact of substance misuse in the military including data limitations and collection methodologies.
- Identify the Department of Defense's (DoD) multi-pronged approach to addressing substance misuse, including policies, programs, and health communications.

INTRODUCTION

- Tobacco use, alcohol misuse, prescription drug misuse, and illicit drug use, are threats to military readiness and resilience.
- Overall, substance misuse has cost the Department of Defense (DoD) billions of dollars in medical costs, prevented deployments, and contributed to loss of productivity.
- However, the scope of this threat is unclear, therefore, a common means for measuring the prevalence of substance misuse is needed.



TOBACCO USE IN THE DOD



■ Tobacco use causes multiple health problems and has been implicated in:

HIGHER DROP OUT
RATES DURING
BASIC TRAINING

POORER VISUAL
ACUITY

A HIGHER RATE OF
LEAVING THE MILITARY
SERVICE DURING THE
FIRST YEAR

A HIGHER RATE OF
ABSENTEEISM
AMONG ACTIVE
DUTY PERSONNEL

■ Financial impact:

- ❑ Overall, tobacco use resulted in an estimated \$1.7 billion in additional medical costs to DoD, including \$1,021 million for Prime beneficiaries and up to \$726 million for Standard beneficiaries.
- ❑ Among tobacco use categories, smoking was the largest contributor of direct medical costs.
- ❑ Among Prime beneficiaries, smoking cost \$926 million, followed by \$80 million for secondhand smoke, and \$5 million for smokeless tobacco use.
- ❑ Additional costs to DoD in the form of reduced Service member performance and readiness were estimated at \$63 million from loss of productivity and fire injuries.

ALCOHOL MISUSE IN THE DOD



■ Demographics of misuse:

- Eighteen to 24-year-olds have the highest prevalence of alcohol misuse and binge drinking. This is consistent among Service members and the general population.

■ Financial impact:

- In 2014, alcohol abuse resulted in an estimated \$1.3 billion in additional medical costs to DoD, including \$846 million for Prime beneficiaries and \$443 million for Standard beneficiaries.
- Additional costs to DoD in the form of reduced active duty Service member performance and readiness were estimated at \$73 million from loss of productivity and Uniform Code of Military Justice violations.

■ Social impact:

- For FY 2017, for all military services, 33% of those Service members who attempted suicide used alcohol during the event.
- The 2018 Workplace and Gender Relations Survey of Active Duty members founds alcohol was a factor in 62% of sexual assault perpetration incidents involving DoD women and 49% for DoD men.

PRESCRIPTION DRUG MISUSE AND ILLICIT DRUG USE IN THE DOD



- **As reflected in the civilian population, the United States Armed Forces are not immune to the ongoing drug epidemic facing our nation.**
 - ❑ Drug use rates are lower among Service members than among the general population, but any amount of substance misuse is incompatible with military readiness.
 - ❑ The most common illicit drugs used by Service members include marijuana, cocaine, amphetamine, methamphetamine, heroin, and benzodiazepines.
 - ❑ Pain relievers were the most commonly misused prescription drugs reported by Service members, and misuse increased with age, with the highest rates occurring among those ages 45 and older.

SERVICE MEMBERS: AT-RISK POPULATION



■ Risk factors for developing substance abuse disorders include :

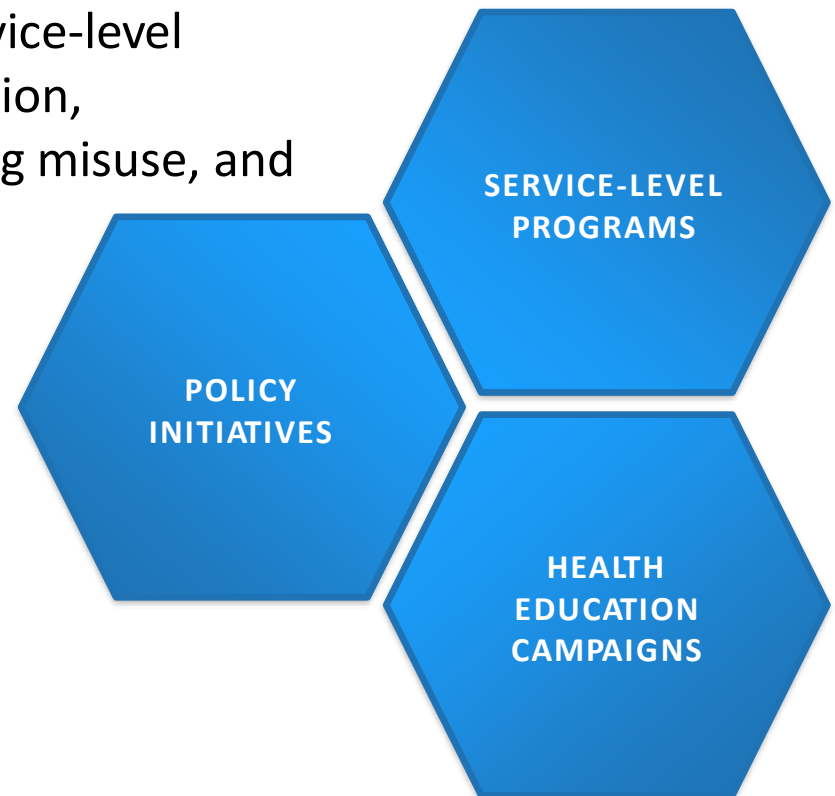


- Parts of military culture, actual and perceived consequences for seeking treatment for a substance use disorder, as well as stigma and negative associations with seeking treatment, are common and impede Service members' ability to address an existing substance use disorder.

DOD's APPROACH TO ADDRESS SUBSTANCE MISUSE



- The DoD has a multi-pronged approach to address substance misuse and increase readiness among **Service members** including health education campaigns, policy initiatives, and Service-level programs that address tobacco cessation, responsible drinking, prescription drug misuse, and illicit drug use.
- The team monitors current trends in use; changes, updates, or publication of new policy; and other hot topics to help inform the DoD's overall strategy.
- However, there is a gap in measuring baseline prevalence; and therefore, the effect on trends cannot be fully assessed.



DOD POLICY INITIATIVES TO ADDRESS SUBSTANCE MISUSE



- **DoDI 1010.10, "Health Promotion and Disease Prevention," (incorporating change 2, January 12, 2018)**
 - ❑ Installations are considered tobacco free by default, institute tobacco-free military housing areas and tobacco-free zones and the prices of tobacco products must match the prevailing local price in the community.
- **DHA-PI 6025.15 "Management of Problematic Substance Use by DoD Personnel" (published in April 2019)**
 - ❑ Establishes Defense Health Agency (DHA) procedures to assign responsibilities for problematic alcohol and drug use identification, diagnosis, and treatment for DoD military personnel.
- **DoDI 1010.04 "Problematic Substance Use by DoD Personnel" (under revision)**
 - ❑ Establishes policies, assigns responsibilities, and prescribes procedures for problematic alcohol and drug use prevention, identification, diagnosis, and treatment for DoD military and civilian personnel.
- The policies are lacking a common definition for misuse and the guidance for measuring substance misuse across the DoD.

CURRENT STATE OF DATA



- There are multiple data sources available with secondary data on the prevalence of tobacco, alcohol, and substance misuse, however available data has limitations, and one source does not fully provide a snapshot of the prevalence rates.

Survey	Strengths	Limitations
Health Related Behaviors Survey (HRBS)	<ul style="list-style-type: none"> • Questions on tobacco, alcohol and prescription and illicit drugs 	<ul style="list-style-type: none"> • Data collected every three years • Low response rate, 8.6% • Question structure change
Status of the Forces	<ul style="list-style-type: none"> • Questions on tobacco and alcohol 	<ul style="list-style-type: none"> • Data collected every two years; lag time in availability of data • Low response rate, ~20%
Health of the Force	<ul style="list-style-type: none"> • New DoD version has questions for all Services 	<ul style="list-style-type: none"> • DoD version does not contain tobacco questions
Electronic Periodic Health Assessment (ePHA)	<ul style="list-style-type: none"> • Longitudinal data across services • Tied to medical records • Large sample size 	<ul style="list-style-type: none"> • Subjective data

CASE STUDY: ALCOHOL-RELATED INCIDENTS (ARI) DATA



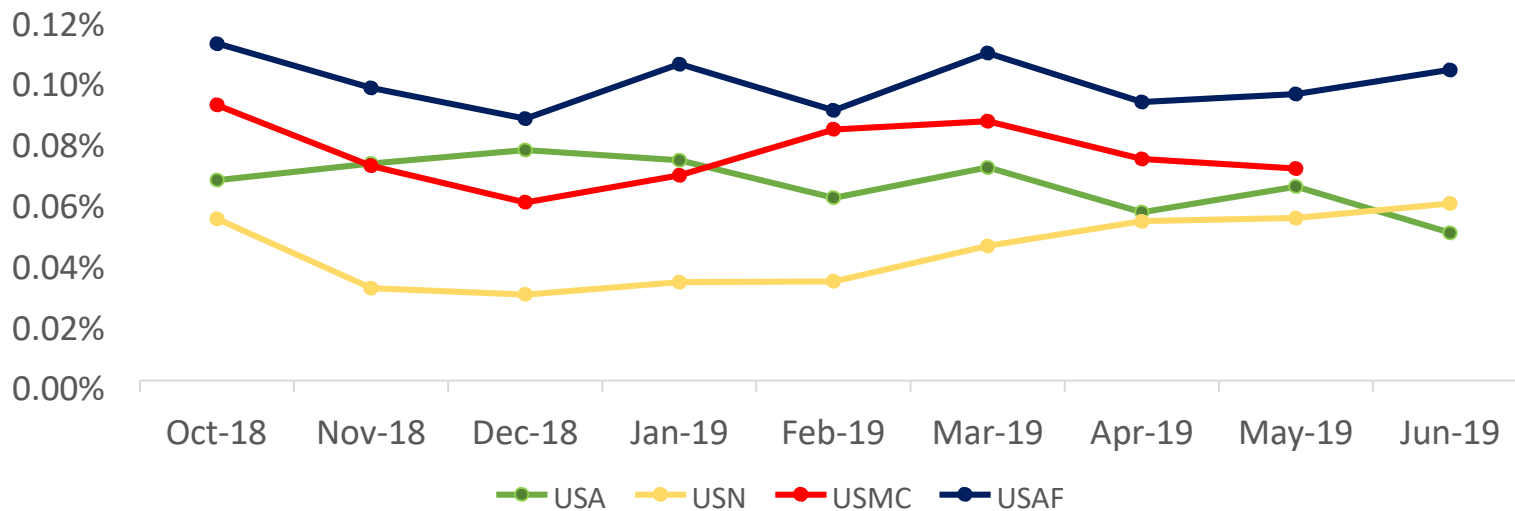
Alcohol-Related Incidents (ARI) Data

- The Office of the Undersecretary for Defense, OUSD(P&R), tasked the Total Force Fitness team to collect and analyze monthly Alcohol-Related Incidents (ARI) data from the Services. The data was presented as the percentage of incidents of the Force.
- **Challenges associated with reporting ARI data:**
 - ❑ There is not a DoD-wide definition of ARI, and thus, there are subtle differences in the way ARIs are defined among the Services and how the information is collected and reported.
 - ❑ ARI reported data does not consistently include sexual assault data; this makes correlating sexual assault related information with alcohol misuse particularly difficult.
 - ❑ Given the current definition and reporting methods for ARIs, the percentage of ARIs do not reflect the extent of alcohol misuse and its impact, it simply reflects Service members who are apprehended.

CASE STUDY: ALCOHOL-RELATED INCIDENTS (ARI) DATA (CONT.)



Alcohol-Related Incidents (ARI) Data



	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
USA	0.07%	0.07%	0.08%	0.07%	0.06%	0.07%	0.06%	0.06%	0.05%
USN	0.05%	0.03%	0.03%	0.03%	0.03%	0.04%	0.05%	0.05%	0.06%
USMC	0.09%	0.07%	0.06%	0.07%	0.08%	0.09%	0.07%	0.07%	-
USAF	0.11%	0.10%	0.09%	0.10%	0.09%	0.11%	0.09%	0.09%	0.10%

STRENGTHENING THE FUTURE STATE OF DATA



- Analyzing various data sources provides a more holistic, 360 degree view of the data on substance use and misuse to identify key prevalence trends – provides the entire story.
- Strengthening standardized reporting procedures, incorporating common data collection definitions and regular collection of data will help measure the prevalence and impact substance misuse has on overall force readiness.
- The DoD-chartered Addictive Substance Misuse Advisory Committee (ASMAC) is prioritizing the discussion on the current state of alcohol-related events and associated data.

PROGRAMS AND INITIATIVES: DOD COUNTER-MARKETING CAMPAIGNS OVERVIEW



- **To improve performance and readiness among Service members**, the following DoD campaigns aim to increase tobacco cessation, decrease heavy drinking, reduce prescription drug misuse (e.g., opioids, amphetamines), and deter illicit drug use (e.g., marijuana).
- The campaigns serve as **essential resources in support of substance misuse programs and initiatives** among the Services.
- Measuring effectiveness of initiatives can provide insights to measuring other public health interventions.

YOU CAN QUIT2

Tobacco Cessation

The *YouCanQuit2* campaign helps Service members quit tobacco or stay quit.

OWN YOUR LIMITS

Responsible Drinking

Own Your Limits encourages responsible drinking, increases awareness and shifts attitudes to reduce binge drinking.



Prescription/Illicit Drugs

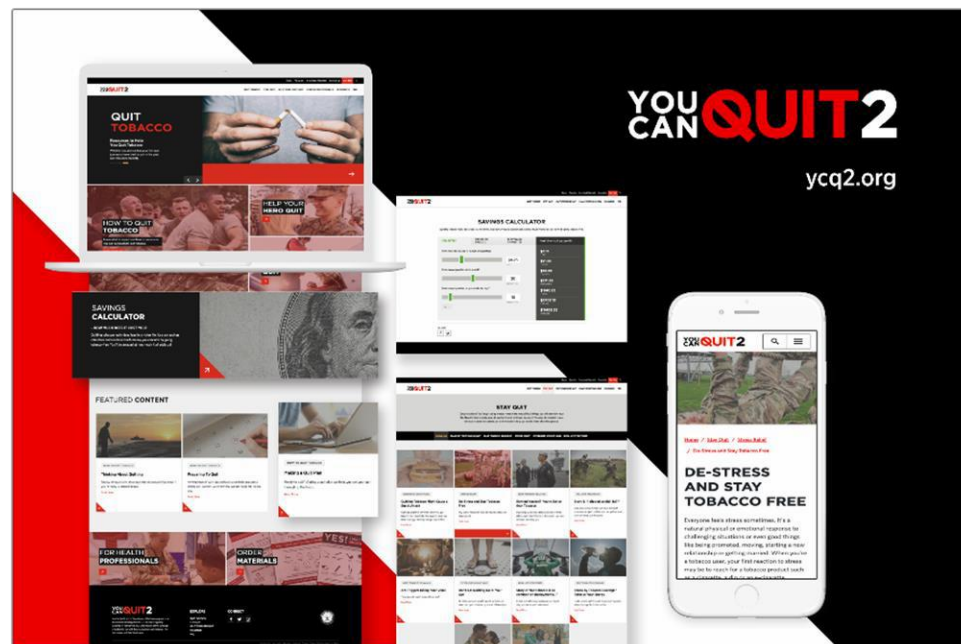
(In development) Educates on prescription drug misuse and illicit drugs/substances.

DOD COUNTER-MARKETING CAMPAIGNS TACTICS



■ The campaigns were developed to meet Service members where they are.

- ❑ The campaigns are not Service specific – they are designed to resonate with all Service branches.
- ❑ Focus group sessions with Service members from all Service branches informed campaign names, messaging, and visual concepts, as well as how they prefer to receive messages.
- ❑ The campaigns are web-based and built on responsive platforms, meaning Service members can access the sites on any device 24/7.
- ❑ Each campaign has a distinct website and brand, but are linked.



YouCanQuit2
ycq2.org
Launched April 2019

CAMPAIGN TOOLS AND RESOURCES



■ The campaigns feature a range of tools and resources

□ Digital tools:

- Evidence-based online quiz to identify risky drinking habits (Own Your Limits)
- Calculators (e.g. tobacco savings calculators and alcohol calorie counter)

□ Informational content (e.g., articles, infographics, fact sheets)

□ Active social media presence: Facebook, Instagram, Twitter

□ Resources for health professionals to give directly to their Service members on military installations, including web resources, print and promotional materials, and e-newsletters



Own Your Limits
ownyourlimits.org
Launched September 2019

CAMPAIGN PROCESS EVALUATION METRICS



- **The campaign team uses process evaluation components to gather data points such as reach, knowledge, attitudes, and exposure based on activities including:**
 - Website traffic
 - Social media metrics
 - Live Chat service usage
 - Event exhibition
 - Partnerships/stakeholder engagement
- **Historically, these are common best practices used in measuring levels of engagement and outputs associated with campaign initiatives. However, these metrics do not effectively measure outcomes and impact.**

FUTURE APPROACH TO EVALUATING OUTCOMES



- **Outcome evaluation examines the effect of a program on an identified behavior.** Often these metrics are short-term, intermediate, and long-term in nature. They include data points such as attitude change, social norms, behavior change, policy changes, and changes in mortality and morbidity. Below are examples of metrics in the context of tobacco cessation and a general timeline to see results.

	Short-Term	Intermediate	Long-Term
Timeline	Immediate	Months-Years	Years
Example Metrics	Increased awareness of YouCanQuit2 campaign Change in knowledge Increased intention to quit	Increased quit attempts Change in policy Program changes	Increased cessation Reduced tobacco use prevalence Reduced tobacco-related costs

- Efforts to obtain outcome evaluation metrics include conducting **focus groups**, developing a strategy for a **campaign effectiveness study**, and identifying **current data and trends** on tobacco, alcohol, and prescription/illicit drug use.

CAMPAIGN EFFECTIVENESS STUDY



- **Collection efforts will rely on a mixed-methods approach**, including surveys, focus groups, observational trips, and health and personnel data.
- **These traditional efforts will be complemented by a rigorous quasi-experimental study:**
 - Use confirmed recall to measure dose-response [i.e., the relationship between campaign exposure (dose) and attitude and/or intent to engage in a behavior (response)].
 - **Conduct campaign effectiveness study:**
 - Assess whether installations are impacted by campaign messaging by measuring the length and amount of campaign exposure and how it impacted the installation's substance use rates. **Convenience sampling will be used** to choose installations with similar characteristics to minimize differences between the installations.
 - Phase 1: **Pilot Test** (Option Year 2)
 - ▷ The pilot test will test the measurement tool, the methodology and the feasibility of the campaign effectiveness study.
 - Phase 2: **Full Study** (Option Years 3 &4)
 - ▷ The full campaign effectiveness study will measure the impact of all DoD Counter-Marketing Campaigns across all Services.
- **Evaluation methodology aligns with best practices** identified by Centers for Disease Control and Prevention, Truth Initiative®, and the internationally recognized National Social Marketing Centre.

CAMPAIGN EFFECTIVENESS STUDY: TWO PHASES



■ Phase 1: Pilot Campaign Effectiveness Study

- Test the statistical significance of the survey tool and test the methodology

■ Phase 2: Campaign Effectiveness Study

- Measure the impact of all three DoD Counter-Marketing Campaigns across all Services

PHASE ONE: PILOT STUDY



- One service
- Two campaigns: YouCanQuit2 and Own Your Limits
- Two installations

**YOU
CAN QUIT2**

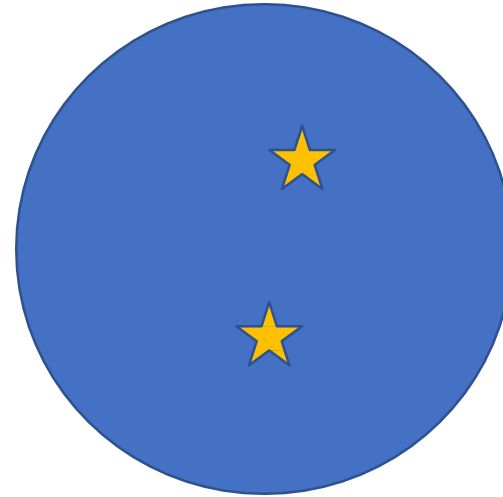
**OWN YOUR
LIMITS**

CAMPAIGN EXPOSURE



Installation A:

Heavy exposure to
campaign materials
and messaging



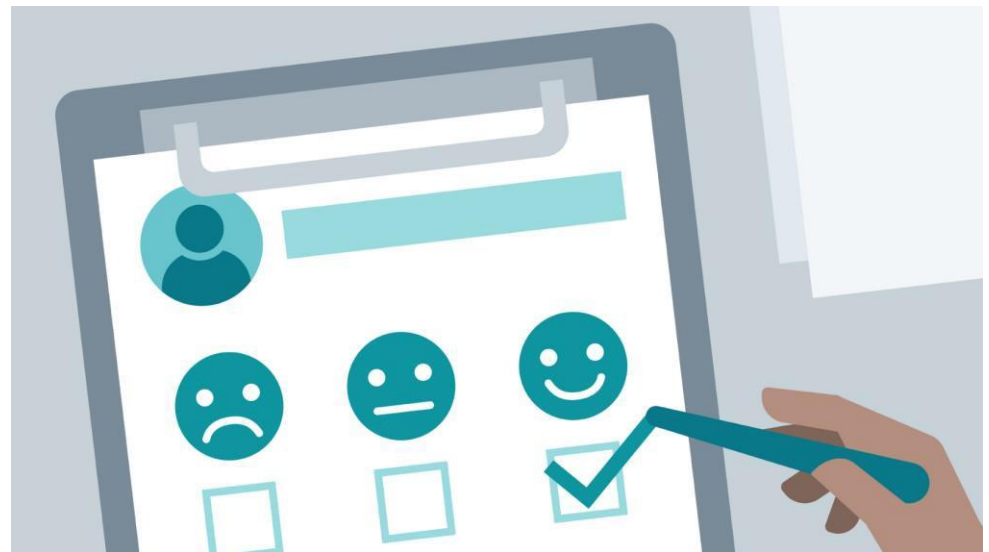
Installation B:

*Normal exposure to
campaign materials
(control group)

*Normal exposure refers to the existing campaign exposure on the installation prior to providing additional campaign materials.

DATA COLLECTION

- Pre-and post-study surveys
- Focus groups
- Secondary data



APPROACH



- Both Installations: For each of the campaigns, Service members take a **pre-survey** to assess **baseline** use trends, campaign awareness, attitudes, and behaviors. **Post-surveys** at the end of the study timeframe will assess **change** in use trends, campaign awareness, attitudes, and behaviors based on exposure.
- Installation A (heavy exposure): Focus groups will be conducted with a **sample** of the population to obtain **additional insights** on survey questions.

Results will show installation-level trends – individuals are not being followed over time.

DETERMINING SAMPLE SIZES

- Sample sizes for **each installation** were determined using a sample size calculation based on **estimated effects** due to **exposure** for both installations.
- Pre-survey estimated sample size = 1432
- Post-survey estimated sample size = 2045 (some folks will be disqualified based on time on installation)



FEASIBILITY OF SAMPLE SIZES



- Sample sizes are large, however, feasibility is under review on an installation level.
- Service members will come to a designated location and take a 15-20 minute survey.

VALIDITY OF SURVEY TOOL



- After data collection, measure the effectiveness of the survey tool.
 - Determine whether the variables in the tool are statistically significant using statistical procedures in software.
- This can be determined since the sample sizes are large.
 - Determined by 80% power

USE OF SECONDARY DATA



- Pre-existing **secondary** data (including ePHA, vitals, electronic health records, etc.) will be used to view use trends data as an **aggregate** for the installation.
- The goal is to obtain secondary data around the study timeframe.
- This analysis will provide a complete picture for use trends, showing whether there were changes in tobacco and alcohol use during the campaign exposure time period when compared to previous years.

PHASE TWO: CAMPAIGN EFFECTIVENESS STUDY



- Once the tool is proven to be statistically significant, the tool and the tested methodology can be used to measure effectiveness across:
 - Multiple installations
 - Three campaigns: YouCanQuit2, Own Your Limits, and the prescription/illicit drug campaigns
 - All Services
- This will eliminate the need for a control installation when conducting the full campaign effectiveness study.



Questions?



Appendix: Presenter Bios

CAPT Kimberly Elenberg, DNP (USPHS)



Captain Kimberly Elenberg, DNP supports the Combatant Commands, as the Director, Total Force Fitness, Public Health Directorate, Defense Health Agency. Captain Elenberg advises the Department of Defense on a comprehensive strategy for optimizing the fitness and resilience of our Service members, their families and the Defense community. This effort directly supports the National Defense Strategy by reforming policy, financial resources, and business practices that impact our Service members' nutritional, physical, environmental, medical/dental, social, behavioral, psychological, and spiritual fitness. Prior to this, Captain Elenberg served in the Office of the Assistant Secretary of Defense for Health Affairs as the Deputy Director of Population Health and Medical Management. She was responsible for guiding population health and disease management at 36 military treatment facilities that serve 9.7 million beneficiaries around the world. Captain Elenberg also served as the Director for Biosurveillance and Emergency response at the Department of Agriculture, where she orchestrated the design and development of nationwide electronic food safety and security systems in addition to assisting with the design of the Department of Homeland Security's National Biosurveillance Information System. For her leadership during deployments in 2007 and 2009, Captain Elenberg received the Surgeon General's Exemplary Service Medal. In 2009, she was selected as the United States Public Health Service Responder of the Year. In 2014, she received the Military Health System Senior Nurse Leadership Award. Captain Elenberg earned a bachelor's degree in nursing at Temple University, Philadelphia, a master's degree in informatics from the University of Maryland, and graduated summa cum laude with a doctorate in nursing practice from Johns Hopkins University, Baltimore.

Danika Rainer, MBA



Ms. Rainer is a social marketer and health communications professional skilled in marketing, communications, outreach, stakeholder relationship management and project management. She currently serves as a Lead Associate in the Health market at Booz Allen Hamilton and has managed and led the development of award-winning health communications campaigns and marketing initiatives that encourage service members to adopt healthy behaviors. As a Project Manager, Ms. Rainer currently supports three Department of Defense (DoD) health campaigns focused on addressing tobacco use, alcohol use and prescription drug misuse in the military. Prior to her time on the DoD health campaigns, Ms. Rainer served as Project Manager for the Guard Your Health campaign that encouraged National Guardsmen to adopt healthy behaviors, and the Real Warriors Campaign, a behavior change campaign designed to encourage help-seeking behavior among service members and veterans experiencing psychological health concerns. She's skilled in project management, including budgeting, staff management, performance evaluation and contract administrative duties, and effectively applies social marketing theory and knowledge of substance misuse trends to communications strategies to drive behavior change among populations.

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Sarah Murtaza, MPH, PMP



Sarah Murtaza, MPH, has eight years of experience in public health and epidemiology. Ms. Murtaza has a wide range of expertise including mixed-methods evaluation, secondary data analysis, conducting systematic reviews and developing national and international evidence-based guidelines. Ms. Murtaza works at Booz Allen Hamilton and currently provides contract support to the DoD Counter-Marketing campaigns research and evaluation initiatives.. Prior to her role, Ms. Murtaza has worked on data collection, analysis and research efforts for the Chief Information Officer of the Navy's Office. Ms. Murtaza also has experience coordinating domestic projects with multiple stakeholders, including health departments, community-based organizations, academic institutions, and federal partners such as the Centers for Disease Control and Prevention (CDC), the Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA). Ms. Murtaza also completed a competitive fellowship in reproductive health epidemiology at the CDC.

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CAMPAIGNS INFORMATION



■ YouCanQuit2

Website: <https://ycq2.org>

Email: dha.ncr.comm.mbx.u-can-quit-2-quit-tobacco@mail.mil

■ Own Your Limits

Website: <https://ownyourlimits.org>

Email: dha.ncr.comm.mbx.drink-responsibly@mail.mil

■ Prescription/illicit drugs campaign

Website: Coming soon!

Email: dha.ncr.comm.mbx.prevent-substance-misuse@mail.mil

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