BEHAVIORAL AND SOCIAL
HEALTH OUTCOMES PRACTICE

A DECADE OF BH EPICONS
LESSONS LEARNED

APRIL 2021

U.S.ARMY
APHC
TA-613-1220

FORWARD

For over a decade, the U.S. Army Public Health Center, Division of Behavioral and Social Health Outcomes Practice (BSHOP) has conducted over 30 Behavioral Health (BH) Epidemiological Consultations (EPICONs) across the globe. We have gained perspective and clarity from interviews and focus groups with over 5000 leaders, Servicemembers, medical providers, and Chaplains, analyzed over 44,000 surveys and provided clinical chart reviews of more than 250 index cases. Because of this work, we have gained valuable information about the risk and protective factors that affect the social and behavioral health of Servicemembers, their units, and the surrounding communities. The knowledge and insights obtained by our BH EPICONs are enriched by the collaborative nature of the process, and they have enhanced our ability to triangulate the data to develop meaningful actionable recommendations in affected communities. Although our work has influenced Department of the Army policy, programs and services for Servicemembers, historically, we have been unable to measure the impact of our BH EPICONs due to the lack of data regarding outcomes and recommendation implementation. Moving forward, BSHOP will prioritize obtaining this information for each BH EPICON in an effort to appropriately measure the impact of our work. We are passionate about what we do and feel privileged to work for Servicemembers and military communities. Thank you for your interest in our work. We look forward to serving you.

Sincerely,

Eren Watkins, Ph.D.
BSHOP Division Chief

TABLE OF CONTENTS

TABLE OF CONTENTS

1. BSHOP OVERVIEW

1.1 HISTORY OF BSHOP

BSHOP was established in 2008 in response to the need for using an epidemiological and public health approach to identify factors impacting the behavioral and social health of Servicemembers.

BSHOP is nested within the Directorate of Clinical Public Health and Epidemiology (CPHE) at the U.S. Army Public Health Center (APHC).

1.2 OUR MISSION

Use the public health process to provide the U.S. military with social and behavioral health information to inform prevention and risk strategies, public health interventions, and policies that maximize individual, unit, and community wellbeing.

1.3 OUR CAPABILITIES

BSHOP has a multidisciplinary team of military, civilian, and contract personnel who are clinicians, scientists, and public health professionals with training and subject matter expertise in epidemiology, sociology, program evaluation, psychology, social work, nursing, and the military. BSHOP offers the following capabilities:

- Monitor: Identify and assess emerging trends in behavioral and social health factors that influence individual and population health of Servicemembers, Families, organizations, and communities to inform policy, individual health screening, risk assessment, and mitigation.
- Respond: Respond to worldwide requests for targeted field investigations using rigorous quantitative and qualitative scientific methods.
- Evaluate: Support the Army to develop and implement evidence-based approaches that improve the behavioral health (BH) and social health (SH) of Servicemembers, Families, organizations, and communities.
- Share: Provide actionable information that informs public health policy and practice through tailored products for a variety of customers.

1.4 FIELD INVESTIGATION AND EVALUATION

BSHOP BH EPICONs, conducted by the Field Investigation and Evaluation branch, are modeled after the traditional public health outbreak investigation (or field investigation) and are used to assess adverse BH and SH outcomes within a population.

Program Evaluations are conducted to systematically improve and account for BH and SH programs and services by assessing the implementation and/or impact of select BH/SH services.

2. BSHOP ACTIVITIES

Between 2008 and 2020, BSHOP personnel conducted field investigations and provided support (occasional multiple visits) to nearly 21 States and Territories. Figure 1 presents the topics covered by BH EPICONs.

FIGURE 1. PAST AND FUTURE BH EPICON TOPICS

PAST BH EPICON TOPICS

FUTURE BH EPICON TOPICS

Nutrition and Behavioral Health

Intimate Partner Violence

Social Determinants of Health (e.g., racism/discrimination, public safety, education, transportation, employment, access to health services, housing).

3. OUR METHODS

3.1 PRIMARY DATA SOURCES

Surveys: Custom surveys can be developed and deployed using the Verint® online survey platform. Surveys can be administered to any size population and completed on personally owned devices (e.g., mobile phone, laptop). Survey questions consist of validated BH and SH scales and questions specific to the stakeholder's concerns. Epidemiologists and social scientists analyze survey data.

Focus Groups and Interviews: Focus groups and interviews elicit attitudes and perceptions impossible to ascertain through surveys alone, such as risk factors specific to a unit or installation, access and barriers to care, occupational stressors, and command climate. They represent the voice of the Servicemember and may be conducted virtually or in-person worldwide with a sample of Servicemembers, leaders, and key personnel from the target population. Focus groups and interviews are conducted by trained personnel and analyzed by qualitative analysts.

Geospatial Analysis: This method provides a general concept of the physical environment (e.g., the presence or absence of community resources, and geographic cluster of suicide-related events). BSHOP utilizes data provided by the stakeholder (e.g., investigation reports, installation maps), publicly available data (e.g., food options, licensed liquor stores), and historical data (e.g., built year of barracks) to conduct geospatial analysis. Results include a community resource map, descriptive statistics of the physical environment, and a statistical analysis of the clustering of events.

3.2 SECONDARY DATA SOURCES

Clinical Index Case Analysis: Characteristics of individuals engaged in serious incidents (e.g., suicidal behavior, domestic violence, and other preventable deaths). This analysis includes an in-depth review of available medical records, Periodic Health Assessments (PHAs), and other available sources to identify significant stressors, similarities, and differences across cases.

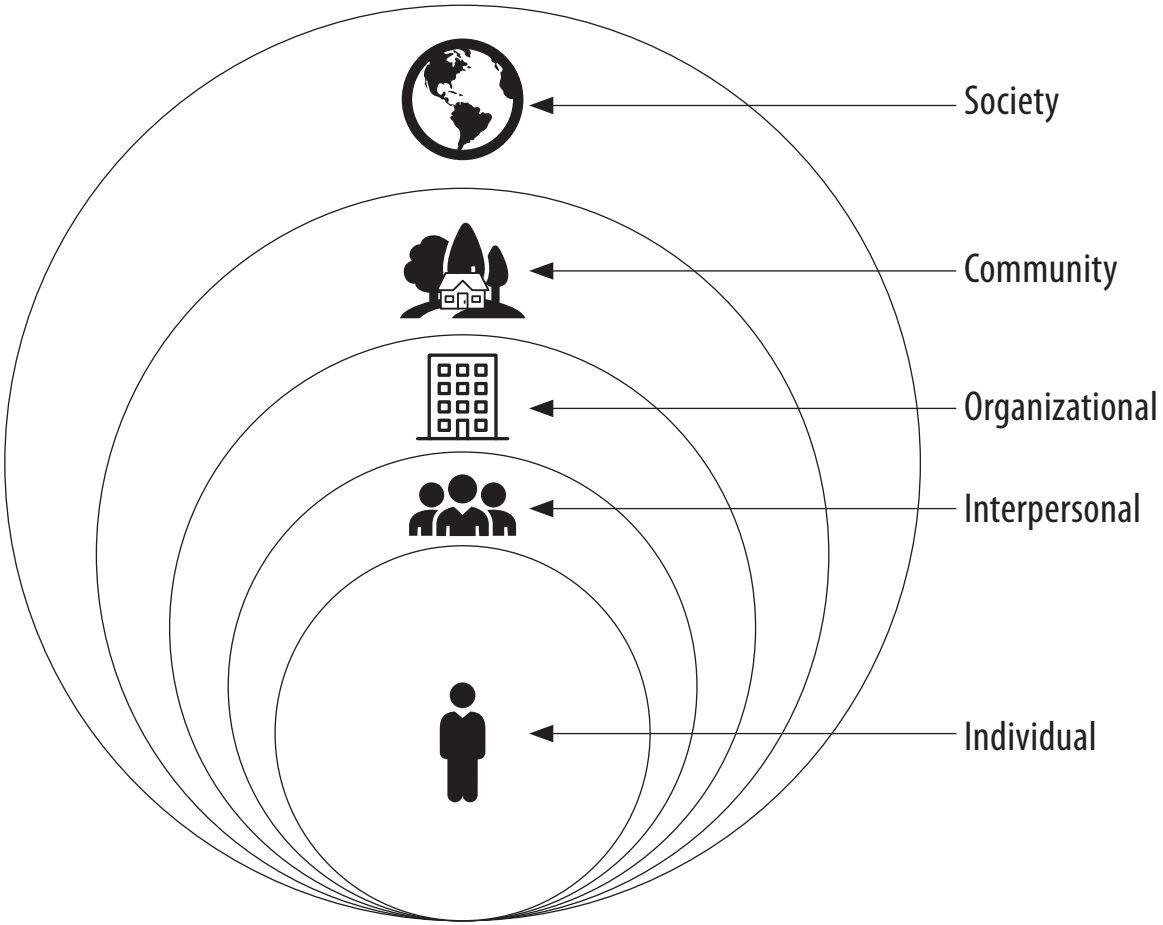
Serious Incident Report (SIR) Analysis: Selected SIRs are summarized to examine common incident patterns. The stakeholder provides SIRs for incidents involving driving under the influence (DUI), substance offenses, assaults (nondomestic), domestic violence, sexual offenses, and deaths.

Administrative Medical Claims Data Analysis: Medical claims data among the population of concern are examined to assess trends of BH conditions (e.g., sleep disorders, adjustment disorder) and psychosocial circumstances (e.g., life circumstances, relationship problems). Data can be used to compare the unit of interest with a similar unit to discern potential differences in demographics and BH outcomes.

Policy Analysis: Based on our 20/20 Policy Analysis Tool developed specifically for BH EPICONs, the tool examines 46 indicators of an effective written policy quantitatively and qualitatively. This analysis is grouped into three domains that include: (1) core components; (2) potential to be assessed for effectiveness; and (3) strengths, weaknesses, opportunities, and threats. Policies receive a comprehensive and independent internal peer-review, and findings are used to inform the stakeholder of existing strengths and opportunities.

4. OUR APPROACH

BSHOP employs two frameworks for triangulating the data and producing evidence-based actionable recommendations for the target population.



4.1 SYSTEMS FRAMEWORK

A systems framework is an approach to evaluate and observe connections within a complex adaptive system such as an organization.[1]

- Observations allow for a "big picture" view of an organization and offers opportunities to see how projects and/or programs are connected. Therefore, these observations can suggest which underlying factors are driving observed outcomes.
- This perspective can provide guidance for continuous evaluation or highlight areas that need adjustment to produce desired outcomes.

BSHOP utilizes a systems framework to categorize issues and systems highlighted in the data that may perpetuate adverse BH and SH outcomes.

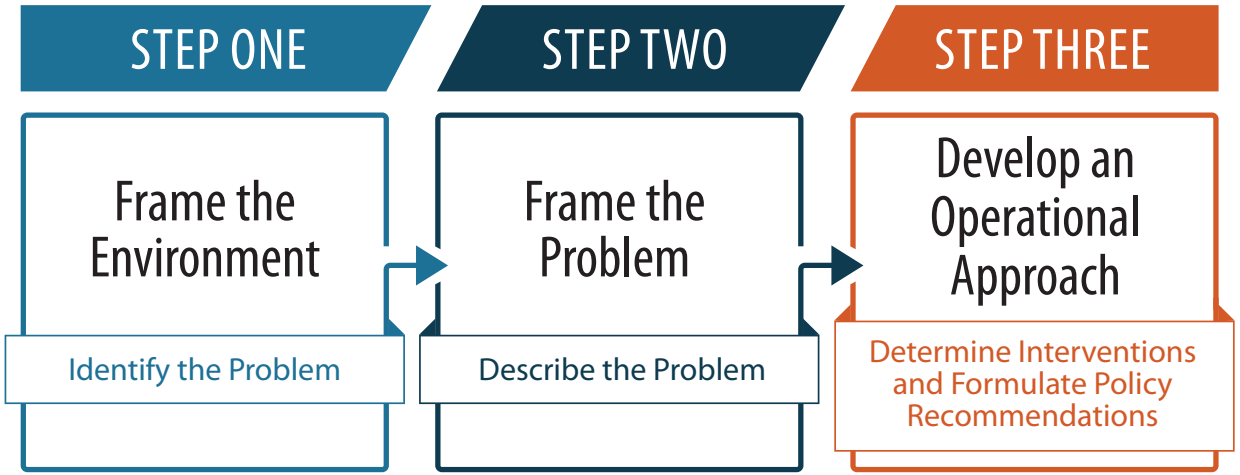
4.2 ARMY DESIGN METHODOLOGY (ADM)

Army Design Methodology (ADM) emphasizes critical creative thinking that views problems as systems existing in a dynamic environment.[2] This approach has become the hallmark of military operations and practice.

ADM follows three key steps: 1) Frame the Environment, 2) Frame the Problem, and 3) Develop an Operational Approach.[2]

Applying ADM to our work establishes efficiency in information delivery and enhances communication between BSHOP and our stakeholders; this includes:

- Engaging a systems framework aids the identification and development of actionable recommendations with the largest impact to promote positive change among a population.
- The ADM framework provides a graphic and narrative for public health practitioners to communicate the "Bottom Line Up Front" (BLUF) in a way that is effective and familiar to stakeholders.
- Better communication of scientific data using the components of the ADM enables leaders to move towards action and start the decision-making process.



Watkins, E.Y., et al. (2020)[2]

5. A DECADE OF BH EPICON FINDINGS: **OVERVIEW**

Sections 6 through 8 reflect a sampling of common findings and actionable recommendations for our suicide-related BH EPICONs completed between 2010 and 2019. The following applies to these recommendations:

- No single recommendation can or is intended to completely resolve the complex issue of suicide.
- While some recommendations directly address death by suicide, others focus on improving more general but related BH, SH, and environmental factors that influence the overall health of the individual, unit, and community.

Ten years' worth of data has led us to focus on the following three salient areas or subtopics:

SOCIAL HEALTH

- Communication Challenges
- Holistic Wellness and Resilience
- Awareness of Resources
- Social Support and Connectivity
- Living Conditions

BEHAVIORAL HEALTH

- Alcohol Use
- Awareness of Common BH Issues and Treatment
- Service Gaps and BH Staffing
- BH Stigma
- Common BH Disorders
- Sleep

ORGANIZATIONAL ENVIRONMENT

- Training Schedules
- Cohesion and Morale
- Engaged Leadership
- Occupational Stressors
- Mandatory Training

6. A DECADE OF BH EPICON FINDINGS: **SOCIAL HEALTH**

6.1 COMMUNICATION CHALLENGES

6.1.1 Findings

- Communication was a persistent problem across all echelons, but the breakdown in communication is most apparent at lower echelons.
- A lack of engaged communication between senior leaders, mid-level leaders, and junior leaders and their Families directly affects mission readiness and work-life balance.
- Junior enlisted Servicemembers resoundingly request active support and engagement from their leaders, particularly when stationed in locations outside of the continental U.S. (OCONUS).

6.1.2 Sample Recommendation

- Engage Subordinates: Leadership must keep junior enlisted Servicemembers informed, practice mission command, maintain a pulse on their Servicemembers' levels of stress and fatigue, and create opportunities to get to know their Servicemembers personally and professionally.

6. A DECADE OF BH EPICON FINDINGS: **SOCIAL HEALTH**

6.2 HOLISTIC WELLNESS AND RESILIENCE

6.2.1 Findings

- Servicemembers frequently endorsed poor sleep quality, limited access to exercise facilities, and lack of easy access to high quality, nutritious, and affordable food options on their installations.
- Onpost resources such as recreation activities, childcare, and community activities were severely limited in some locations; events were often scheduled during times that compete with training priorities precluding Servicemember participation.
- Improving and sustaining behavioral health and readiness is directly tied to both individual and unit physical, emotional, and spiritual health.

6.2.2 Sample Recommendations

- Wellness and resilience strategies should be promoted and integrated in the Soldier's personal life (e.g., strong interpersonal relationship, good nutrition) and the operational environment (e.g., use of Master Resiliency Trainers).
- Leaders must emphasize a holistic approach to wellness, which includes physical, emotional, psychological, and spiritual health to maximize readiness.
- Community resources and events should be expanded and promoted to increase access to Servicemembers and the community at large.

6.3 AWARENESS OF RESOURCES

6.3.1 Findings

- Servicemembers generally reported positive experiences with Chaplains, Military and Family Life Counselors, and other SH-related resources (e.g., Family Advocacy Program, Military OneSource, Community Resource Guides).
- Despite the availability of SH-related resources, awareness and use of these resources is often limited.

6.3.2 Sample Recommendation

- Employ targeted marketing campaigns and strategies to increase awareness of SH resources and programming.

6. A DECADE OF BH EPICON FINDINGS: **SOCIAL HEALTH**

6.4 SOCIAL SUPPORT AND CONNECTIVITY

6.4.1 Findings

- Relationship problems are one of the most common stressors reported by Servicemembers; lack of quality time with family, poor work-life balance, and physical separation from support systems further erode social resilience.
- Servicemembers who report isolation and loneliness are at increased risk for suicidal ideation; alternatively, those who report greater resilience or social support are less likely to report suicidal ideation.
- Problems in a Soldier's social support system and other social determinants of health are often underestimated due to a lack of documentation in medical records, which results in a lack of appreciation for the importance of social health on overall well-being.

6.4.2 Sample Recommendations

- Promote connectedness as a protective mechanism, which can enhance overall health, well-being, and unit readiness.
- Protecting family time and increasing availability and participation in available social programming can reduce loneliness and enhance connectivity.

6. A DECADE OF BH EPICON FINDINGS: **SOCIAL HEALTH**

6.5 LIVING CONDITIONS

6.5.1 Findings

- The living environment of Servicemembers is a well-known issue that the Army has taken active steps towards addressing.
- Aging infrastructure, challenges with maintaining buildings, vandalism, overcrowding, and substantial delays for repairs have rendered the barracks stressful and inadequate.

6.5.2 Sample Recommendations

- Enforce Commanding General (CG) policies on barracks utilization and command visits to maintain oversight of living conditions and evaluate the implementation of health and welfare inspections.
- Evaluate work order request system and maintenance demands to identify opportunities for improvement, enhanced efficiency, and follow-ups.

7. A DECADE OF BH EPICON FINDINGS: **BEHAVIORAL HEALTH (BH)**

7.1 ALCOHOL USE AND SUBSTANCE MISUSE

7.1.1 Findings

- Alcohol misuse continues to be a problem across the Army contributing to an array of problems, including BH disorders, misconduct/crimes, suicidal thoughts and behavior, and nonreadiness.
- A recent BH EPICON at one installation found that 22% of Servicemembers reported hazardous drinking, and these individuals were significantly more likely to endorse sleep problems and job dissatisfaction.
- Many Servicemembers believe off-duty alcohol misuse is tolerated by their leadership, which may contribute to increased drinking and related problems (e.g., ineffective coping, DUIs, relationship problems).

7.1.2 Sample Recommendations

- Leaders must address misuse and promote a universal, coordinated community response and campaign that discourages the use of illicit substances and misuse of alcohol and medication.
- A comprehensive leader development-training program at echelon can equip leaders with the knowledge and skills needed to address prevalent stressors associated with BH and SH including social intelligence, Military Occupational Specialty (MOS)-specific expertise, access to and use of BH services, BH stigma, psychosocial problems, and alcohol and drug misuse.

7.2 AWARENESS OF COMMON BH ISSUES AND TREATMENT

7.2.1 Findings

- First-line supervisors and battle buddies are often the first line of defense against adverse BH and SH outcomes such as suicide.
- Awareness of the most common BH diagnoses and available resources for treatment and support is critical to recognize early warning signs and changes in behavior reflective of a potentially larger problem.

7.2.2 Sample Recommendations

- Leaders should model and emphasize the importance of wellness and strategies to build resilience (e.g., Performance Triad (P3): Sleep, Activity, Nutrition; and social support).
- First-line supervisors must meaningfully engage with Servicemembers both professionally and personally so they can be attuned to unusual behavior or warning signs that a Servicemember needs additional support.

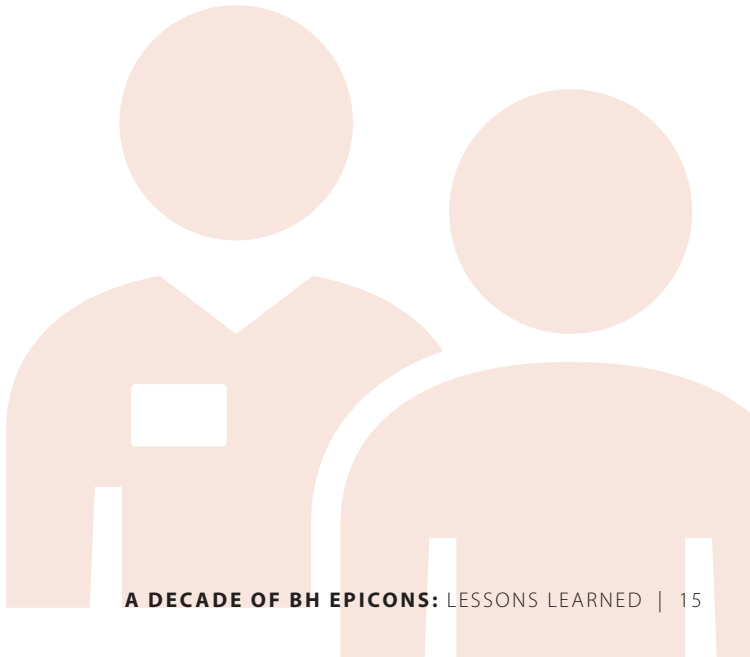
7.3 SERVICE GAPS AND BH STAFFING

7.3.1 Findings

- Both Servicemembers and providers frequently reported BH resources to be understaffed and overworked.

7.3.2 Sample Recommendation

- To ensure adequate and timely access to services, gaps in the availability of programs and shortages in mission critical BH staffing (e.g., BH clinicians, health educators) should be filled and sustained.



7.4 BH STIGMA

7.4.1 Findings

- Though BH stigma appears to be improving over the last decade, Servicemembers continue to report fears that engaging in BH care will result in being treated differently by their leadership or being perceived as weak.
- Servicemembers report seeking BH can lead to negative career consequences for some MOSs and career paths (e.g., recruiters and aviation), which precludes Servicemembers from seeking help when they need it.

7.4.2 Sample Recommendations

- Army leadership must actively work to eliminate stigma associated with seeking BH services by modeling treatment seeking, supporting access to treatment, maintaining the privacy of their subordinates, and increasing awareness of BH and community outreach services.
- A comprehensive education campaign implemented and monitored through Commander's Ready and Resilient Council (CR2C) working groups in collaboration with the Public Affairs Office, BH, and Army Community Services (ACS) can plan, promote, and disseminate messages utilizing evidence-based strategies.
- Disseminate BSHOP's Stigma Fact Sheet to increase awareness of stigma and offer Servicemembers and Leaders actions for mitigating the effects of stigma.

7.5 COMMON BH DISORDERS

7.5.1 Findings

- The odds of reporting past-month suicidal ideation were higher among Servicemembers who reported severe sleep problems (253% increase), depression (177% increase), loneliness (93% increase), anxiety (62% increase), PTSD (54% increase), and hazardous drinking (40% increase).
- A recent BH EPICON at one installation found that 64% of Servicemembers reported at least one adverse/traumatic event experienced as a child. Adverse childhood experiences have been associated with increased BH issues later in life, such as anxiety, depression, alcohol and drug misuse, violence perpetration, and suicide attempts.[3]
- Approximately 50% of Servicemembers who die by suicide had an encounter with a BH provider in their medical records.

7.5.2 Sample Recommendations

- Leverage existing systems and structures to continue and improve engagement with the installation, embedded, and unit-organic BH services. This will improve early use of available resources, facilitate cross-talk and coordination with medical and nonmedical installation and unit-organic assets, and reduce identified barriers to care.
- Optimize use of existing processes for data collection and sharing to facilitate communication after a high-risk event such as a suicide attempt.

7. A DECADE OF BH EPICON FINDINGS: **BEHAVIORAL HEALTH (BH)**

7.6 SLEEP

7.6.1 Findings

- While leaders frequently emphasize the P3 (Activity, Nutrition, and Sleep), more education is needed on the importance of sufficient, high-quality sleep as a critical component of individual readiness.
- A recent BH EPICON found that sleep problems were the most common BH diagnosis in the administrative medical claims, with 11% of Servicemembers receiving a diagnosis and 34% reporting poor sleep quality within the past week.
- Nearly half of Servicemembers who died by suicide had documented sleep problems in their medical records.

7.6.2 Sample Recommendations

- Disseminate BSHOP's Sleep Infographic to educate Servicemembers and Leaders on the importance of and strategies to improve individual sleep quality.
- Consult with the Walter Reed Army Institute of Research (WRAIR) Sleeping Working Group to address unique environmental and population-level sleep concerns.

8. A DECADE OF BH EPICON FINDINGS: **ORGANIZATIONAL ENVIRONMENT**

8.1 COHESION AND MORALE

8.1.1 Findings

- A variety of factors influence a Servicemember's perception of unit cohesion and morale, but once diminished, it can be challenging to rebuild.
- Tight knit units perform better, and Servicemembers who report greater unit cohesion prior to deployment are less likely to report suicidal ideation 3- and 9-months post-deployment.[4]

8.1.2 Sample Recommendation

- Leadership should engage in regular activities designed to foster teamwork, esprit de corps, and the fighting spirit within their units.

8. A DECADE OF BH EPICON FINDINGS: **ORGANIZATIONAL ENVIRONMENT**

8.2 OCCUPATIONAL STRESSORS

8.2.1 Findings

- Sustained high operational tempo (OPTEMPO) and the demands of being a "24/7 Soldier" has taken a toll on the overall SH and BH of Servicemembers.
- Servicemembers commonly report unpredictable and unexplained training schedules, unnecessary taskings, and a lack of prioritization contribute to strained work-life balance, poor job satisfaction, lower unit morale, and burnout.
- Unpredictable schedules and long work hours make it difficult to get time off to make critical BH (i.e., therapy) and SH (i.e., financial counseling) appointments, and to prioritize family time.
- Junior leader development is often sacrificed during times of sustained high OPTEMPO, often leading to perceptions that leadership lacks the experience, subject matter knowledge, and professionalism necessary to be effective.

8.2.2 Sample Recommendations

- Maintain policies related to the standard duty day and enforce training schedules.
- Training calendars should be carefully developed and protected once established.
- Designate and protect regularly recurring time to enhance professional development, family time, and payday activities.

8.3 ENGAGED LEADERSHIP

8.3.1 Findings

- Army priorities imposed on leadership and a sustained high OPTEMPO have eroded the core leader attributes and competencies as identified in the Army Leadership Requirements Model.
- Servicemembers report effective mentorship occurred when leaders expressed an interest in both their professional and personal lives and provided an abundance of on-the-job training opportunities.
- High OPTEMPO, poor time management, unpredictable schedules, lack of task prioritization, and limited manpower are often associated with insufficient time allocated for professional development and engagement with Servicemembers.

8.3.2 Sample Recommendations

- Leadership should work toward better incorporation of mission command philosophy in day-to-day execution of activities.
- Establish and maintain protected time for Leaders to address monthly counseling information and goal setting, develop career maps, and share career knowledge and experiences.
- Utilize the Army's Framework for Character Development to relay expectations and place emphasis on the responsibilities of individual leaders to increase opportunities for junior leader development.

9. BSHOP BH EPICON IMPACT

Findings and recommendations from a decade of BH EPICONs have contributed to both small and large scale changes focused on improving the health of Servicemembers. Some of the changes that BSHOP BH EPICONs have led to include:

Inclusion in the Army Health Promotion Risk Reduction Suicide Prevention Report (The Red Book): In 2010, BSHOP services and BH EPICON findings were featured in the The Red Book as part of Army-wide efforts targeting health promotion, risk reduction, and suicide prevention.

Initiation of the Embedded Behavioral Health Program: The augmentation of reintegration screening among Servicemembers and the implementation of dedicated Behavioral Health Officers (BHO) within every brigade through the Embedded Behavioral Health (EBH) program was partially based on findings from the 2008 to 2009 BH EPICON completed at Fort Carson.

Development of Polypharmacy and Overdose Medical Education (POME) Training Program: Findings from the 2012 Warrior Transition Unit (WTU) BH EPICON highlighted the need to address substance misuse due to polypharmacy within WTUs. This also contributed to an increased focus on polypharmacy and the development of a specific training video to educate WTU staff how to recognize signs and symptoms of medication misuse and abuse.

Remote and Austere Conditions Assignment Incentive Pay and Basic Daily Food Allowance Increases: Findings from the holistic Fort Wainwright, Alaska (FWA) BH EPICON led to several pivotal recommendations that garnered substantial support available for Servicemembers and Families. In March 2020, the Army announced that Servicemembers assigned to FWA and Fort Greely or Joint Base Elmendorf–Richardson will receive one-time payments of $1,000 to $4,000 as part of an effort to improve the quality of life for Servicemembers and Families stationed in Alaska. The basic daily food allowance was also increased by 44% so that Servicemembers could select healthier options when using the dining facilities.

Improvements to FWA Infrastructure and Recreation: As a result of the FWA BH EPICON, plans are currently underway for the construction of additional barracks, facilities, and recreation centers to strengthen FWA infrastructure and boost installation morale. Blackout curtains have been installed in the barracks to support better sleep quality and light boxes are available to Servicemembers at no cost to combat seasonal affective disorder. An on-call shuttle system was established to transport Soldiers between the barracks, the gym, and the dining facilities. Over $900,000 worth of new gym equipment was installed in the fitness facility and hours were updated to 24/7 for improved accessibility. FWA also received $240,000 for additional entertainment support.

9. BSHOP BH EPICON IMPACT

Increased Funding for Equipment and Training at FWA: In response to concerns regarding winter vehicle maintenance and insufficient operational funding, the Army funded construction of eight Winter Maintenance Facilities at FWA to allow for proper indoor maintenance and storage of half of the Stryker fleet. Annual funding to one Stryker Brigade was increased by $7M, enabling a higher state of readiness. An Army Combat Fitness Test training facility has been renovated and four new Combat Readiness Training Facilities are being built.

Enhanced BH Services: Intensive outpatient care was established at the BH clinic at FWA following the BH EPICON, and changes have been made to ensure conditions are primed for better military and civilian staffing of much needed health care positions.

Increase in Leader Development Time: Since the 2018 BH EPICON at Fort Campbell, leader training time has increased. Additionally, units have focused on establishing and protecting training calendars to avoid last minute taskings. These changes are codified in their current training guidance. The FWA BH EPICON also resulted in improvements to leadership training and development with all supervisors completing ENGAGE training for more meaningful leader-Soldier connections.

Partnerships with Family members and Ongoing Surveillance following a Mass Shooting: After the mass shooting at Fort Hood in 2009, BSHOP informed ongoing surveillance efforts and monitored the community's return to baseline health. BSHOP worked to develop tailored services for Servicemembers, Civilians and Family members experiencing specific BH outcomes resulting from the mass shooting.

10. NEW AND EMERGING TRENDS

BSHOP is continuously assessing the importance of new and emerging public health trends.

BSHOP remains at the leading edge of public health practice by directly or indirectly exploring the impact of various current events and emerging risks to the BH and SH of Servicemembers. Over the last several years we have explored a variety of novel areas directly impacting Servicemember readiness to include:

Cost of Illness Study: BSHOP conducted a cost of illness study that describes Soldiers who died by suicide within the first year of service. Costs associated with overall recruiting, training, and direct medical and nonmedical were assessed. The findings from the cost study are forthcoming and will help inform Army suicide prevention efforts, policy development, program implementation, and future cost effectiveness studies.

Sleep: Nearly one-third of Americans report insufficient sleep in a recent survey,[5] and poor sleep is also heavily endorsed by Servicemembers across BH EPICONs. Army culture and a lack of education about the importance of adequate sleep are largely responsible for this neglect. Understanding the importance of sufficient sleep and its significance to readiness is critical for leaders and Soldiers.

10. NEW AND EMERGING TRENDS

Loneliness: In recent years, loneliness has become an epidemic in the United States, and is increasingly prevalent in the Army. In more recent BH EPICONs, loneliness has been consistently reported as an important factor, specifically among OCONUS installations/units. In two recent BH EPICONs, 40% of Servicemembers endorsed feelings of loneliness. A decade of BH EPICONs found Soldiers who died by suicide commonly had histories of childhood abuse, family stress and dysfunction, and loneliness/lack of social support. Future efforts will examine the long-term consequences of loneliness and inadequate SH on the overall health and readiness of Servicemembers and their units.

COVID-19: The COVID-19 pandemic and its influences on the BH and SH of Soldiers, units, and communities will be a tremendous area of study for decades. Through our future work on this imminent public health crisis, we hope to provide senior Army leaders with valuable information that will aid in determining comprehensive resource needs when responding to other natural disasters, or events that require Federally-mandated quarantine or stay-at-home orders.

Social Determinants of Health: BSHOP and the U.S. Army have renewed focus on examining racism and discrimination, and its impact on public health in the Military. Racism and discrimination are public health issues that unfairly advantage and disadvantage some individuals. Ultimately, racism and discrimination result in health disparities and are a driving force in social determinants of health inequities. Other factors, including economic stability, education, and housing, that may place Soldiers at increased risk of adverse outcomes will also be examined in future work.

11. BH EPICON FAQS

11.1 What are Behavioral and Social Health Outcomes?

- BH outcomes are clinically diagnosed conditions that include but are not limited to anxiety disorder, mood disorders, post-traumatic stress disorder, adjustment disorder, substance use disorder, and sleep disorders.
- SH outcomes are self-reported influential life circumstances that include but are not limited to financial readiness, interpersonal relationships, transportation, education, housing, discrimination, racism, and access to helping services.

11.2 What is a BH EPICON?

- A BH EPICON is a process designed to assess adverse BH and SH outcomes within a population using a variety of scientific methods (e.g., surveys, focus groups, clinical index case analysis).
- BH EPICONs examine rates, trends, and themes of BH and SH outcomes through primary and secondary data analysis.

11.3 How will a BH EPICON help YOU?

- BH EPICONs provide data-driven information about the overall health of a unit or population.
- Identify and describe risk and protective factors.
- Provide actionable recommendations in the form of prevention and mitigation strategies to improve the BH and SH, and Servicemember readiness.

11.4 Who can a BH EPICON help?

- Any population of concern with a demonstrated outbreak of BH or SH concerns.

11.5 What can a BH EPICON evaluate?

- BH EPICONs commonly start with at least one core BH or SH concern, such as a recent increase in violent behavior (includes assault, homicide, domestic violence), suicide, or other preventable deaths.
- Because BH EPICONs take a holistic public health approach to understanding the overall health of a population, we also commonly assess
    - Suicidal thoughts and behavior.
    - Availability, accessibility, and use of BH resources.

- BH stigma and barriers.
- Sleep.
- Discrimination.
- Racism.
- Nutrition.
- Social support.
- Communication.
- Leadership development.
- Occupational environment.

11.6 How is a BH EPICON done?

- BH EPICONs are tailored to the specific needs of each stakeholder requesting support and may include qualitative and/or quantitative methods such as:
    - Interviews.
    - Focus groups.
    - Clinical index case analyses (e.g., review of medical record and clinical notes).
    - Customized online surveys.
    - Administrative medical claims data analysis.
    - Serious incident report (SIR) analysis.
    - Geospatial analyses.
    - Policy review.
- The data gathered and analyzed during BH EPICONs help to characterize the events and populations of concern, compare the target populations to like units or to the Army overall, identify changes in behaviors over time, and recognize contributing factors.
- Findings are triangulated across methods to inform data-driven, actionable recommendations to reduce the incidence of BH and SH threats and promote resilience.

11.7 How are BH EPICONs funded?

- Associated labor and manpower costs for conducting a BH EPICON are funded through APHC, and travel costs are usually funded by the stakeholder.

11.8 How long does a BH EPICON take?

- The length of time to complete a BH EPICON depends on other BSHOP mission priorities, project scope, the complexity of the study design, and the customers' ability to provide BSHOP with requisite data in a timely manner.
- On average, the last three BH EPICONs that required travel and extensive primary data collection and analyses were completed in 6 months.
- BH EPICONs comprised primarily of secondary data analyses can be completed in a few weeks.

11.9 What needs to be done prior to requesting a BH EPICON?

- Use installation-level resources first (e.g., CR2C, Commander's Risk Reduction Toolkit (CRRT), surveillance mechanism) to assess identified problem area(s).
- Ask – Is this problem "new news"? If not, determine what has already been proposed to remedy the problem.
- Review BH EPICON Lessons Learned.
- Implement previous recommendations from similar BH EPICON efforts and monitor progress.

11.10 When should an EPICON be requested?

- When there has been a perceived cluster of adverse outcomes or events of Public Health significance (e.g., suicidal behavior, homicide, sexual assault) for which previously monitored recommendations have not been effective.
- When there are population-level concerns about social health indicators (e.g. availability, access, and use of BH resources; BH stigma; barriers to BH care; racism; discrimination; social support; communication; food insecurity; housing; nutrition).
- When there is a clear demonstration of strong leader buy-in and support. This is critical.

11.11 How do I request a BH EPICON?

- Commanders typically request BH EPICONs through their chain of command to the Office of the Surgeon General who tasks the APHC's BSHOP.
- BSHOP, in coordination with the requestor/stakeholder, determines if a BH EPICON is necessary. If so, each BH EPICON is designed based on resource and timeline considerations, commander's intent, and the needs of the unit.

11.12 Does BSHOP conduct BH EPICONs for other Services?

- While not a routine practice, BSHOP has conducted BH EPICONs for other Services.

11.13 What is a Mission Support Request (MSR)?

- The MSR is the formal document that outlines the scope of work for a BH EPICON and expectations for BSHOP and the customer as well as the contract between organizations. The ability to complete each BH EPICON in a timely manner is heavily dependent on a customer's ability to provide all the data required for each component analysis. If a customer is unable to provide the requisite data, BSHOP will exclude that portion of the analysis from the BH EPICON.

11.14 How should I use the Lessons Learned in this document?

- While the results of a BH EPICON are typically relevant to the population and timeframe of the study, this document illustrates common themes that have emerged across populations over time.
- Stakeholders who are observing similar trends and themes within their own units should begin by examining these concerns over the last 3 to 5 years within their organization to determine whether they are experiencing a true cluster or increase in adverse BH or SH outcomes.
- The effectiveness or impact of BH EPICON recommendations is dependent upon the customers' motivation to implement changes and their willingness to implement strategies and monitor outcomes.
- Leader and Servicemember turnover due to the dynamic nature of the military occupation is another challenge for the BH EPICON process. Leaders are encouraged to ensure that in-coming commanders are provided with a "warm hand-off" describing the purpose of the BH EPICON and progress toward recommendation implementation.
- Where required, BSHOP can increase the feasibility of recommendation implementation by providing additional consultative support (e.g., assist in the development of logic models, actions plans of a framework for program evaluation).

12. POINT OF CONTACT

The APHC BSHOP is the point of contact for this project.

U.S. Army Public Health Center
Behavioral and Social Health Outcomes Program
usarmy.apg.medcom-aphc.list.eds-bshop-ops@mail.mil

APPENDIX A

REFERENCES

1. Peters, DH. 2014. The Application of Systems Thinking in Health: Why Use Systems Thinking? *Health Res Policy Syst* 12:51.
2. U.S. Army Public Health Center. 2020. Technical Guide No. 388, *Translating Public Health Practice Using the Army Design Methodology*. Prepared by E.Y. Watkins, et al., Aberdeen Proving Ground, Maryland.
3. Hughes, K, MA Bellis, KA Hardcastle, D Sethi, A Butchart, C Mikton, L Jones, and MP Dunne. 2017. The Effect of Multiple Adverse Childhood Experiences on Health: A Systematic Review and Meta-Analysis. *Lancet Public Health* 2(8):e356-66.
4. Anderson, LL, et al. 2019. Prospective Associations of Perceived Unit Cohesion with Postdeployment Mental Health Outcomes. *Depress Anxiety* 36(6):511-21.
5. QuickStats. 2020. Percentage of Currently Employed Adults Aged ≥18 Years Who Reported an Average of ≤ 6 Hours of Sleep per 24-Hour Period, by Employment Category — National Health Interview Survey, United States, 2008–2009 and 2017–2018. *MMWR Morb Mortal Wkly Rep* 69(16):504. doi: http://dx.doi.org/10.15585/mmwr.mm6916a5.


U.S.ARMY
APHC