THE RECORD

Interagency Institute for Federal Health Leaders

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From the Director…

The 134th Interagency Institute featured a new component to the opening day of the program on March 25, 2019. I invited LTG Joseph Anderson, Deputy Chief of Staff, G-3/5/7, Department of the Army, to give the Keynote Address and to focus on what a senior line officer expects of military medicine. General Anderson gave a very thoughtful and comprehensive presentation. He challenged the participants to take a fresh look at their assumptions about health promotion, disease prevention and health services to active duty members, retired members and dependents. We all too often overlook 'customer' views on these topics and it is important to be reminded that the priorities and approaches of health professionals may not always be aligned with those of our patients. For future Institutes, I will ask senior line officers from our four other participating agencies to present their views and engage in discussions with the participants.

As you will appreciate, we have been most fortunate in being able to attract a very distinguished group of faculty from very diverse backgrounds to speak at the Institute. Our 'core' faculty are complemented each time with new members bringing fresh ideas and knowledge about current 'hot' topics which impinge on federal health care. I have always asked our faculty to leave sufficient time for questions and discussion. Sometimes, however, this difficult to implement! In the future I will make it very clear that we must have adequate time for faculty and participants to discuss the information and ideas presented and why their content is relevant to the current and future work environments of our participants.

You will not be surprised to read that a lot of time was spent during this Institute discussing the far reaching changes being implemented in the military health system and more broadly in the federal health sector. The realignment of authority and responsibility in military medicine is putting new demands on senior health professionals and, at the same time, these changes are requiring innovations and flexibility at all levels of leadership, management and practice.

Once again, the Embassy of Canada, most graciously hosted the Institute for the "Lessons from Other Countries." The Canadian Forces Surgeon General, Surgeon General of the United States, U.S. Air Force Surgeon General, VHA Executive-In-Charge, Director of the DHA NCR Medical Directorate and the U.S. Navy Surgeon General representative participated in a lively panel discussion. The private and military health systems of five nations, Canada, Germany, United Kingdom, Japan and Australia were presented for comparative purposes. These two sessions were the most highly rated by the participants.

During the Institute, participants were assigned to one of five discussion groups to address specific topics. Their reports are presented in this newsletter.

I am pleased to announce that it has been decided to update the Institute name to the ***Interagency Institute for Federal Health Leaders*** **(IAIFHL)**. This name change reflects recognition that over the years we have been placing more and more emphasis on leader development and health policy as major foci for this professional development course for senior federal health professionals. When one looks back to the launching of the Interagency Institute, it began 70 years ago with the goal of developing more effective hospital administrators, then senior health care executives, and now the nurturing and growth of senior health leaders.

With best wishes.

Sincerely,

Dr. Richard F. Southby

USU Uniformed Services University

Letter from the President, FHCEIAA

Congratulations to the alumni of the 134th Interagency Institute held during March 25 to April 5, 2019. We are elated that 75% of the class have already jointed the Federal Health Care Executives Interagency Alumni Association! A warm welcome to all.

I understand there was an outstanding turnout for the Participants and Alumni dinner with Mr. Thomas McCaffery, Principal Deputy Assistant Secretary of Defense for Health Affairs, as the guest speaker. A special thanks to Express Scripts, Inc. and Spectrum Healthcare Resources for their generous support of the event at the Army Navy Country Club.

Electronic Resources: We are in the process of revitalizing the FHCIAA website. While we now have a social media presence on Facebook, we are seeking to centralize our electronic resources to support a vital online presence. The ultimate goal is to project our vision, purpose and services, post updates, maintain connections, collaborate with and respond to one another. You can locate us by name search or through the direct links below:

Facebook: https://www.facebook.com/Federal-Healthcare-Interagency-Institute-1805076689707896/

FHCEIAA Website: http://www.fhceiaa.org/

If you are interested in serving with the IT Workgroup to assist in these FHCEIAA efforts, I welcome an email sent to aaron.middlekauff@fda.hhs.gov.

Membership: Please consider becoming a FHCEIAA member if you have not already joined. Membership ensures maintaining connectivity with alumni and access to collaborative wisdom in our efforts to maximize resourcefulness and effectiveness. Additionally, members continue to receive the newsletter, are eligible to apply for a $2,000 professional development scholarship, and dependent children/grandchildren are eligible to able to apply for a $1,500 scholarship (Two are awarded each year). If you have questions about membership or scholarship applications, contact CAPT (Ret) Gayle Dolecek, FHCEIAA Treasurer, at gjdolecek@verizon.net.

Administrative Reminder: Kindly add CAPT Dolecek's e-mail address to your e-mail contacts in order to avoid timely FHCEII correspondence ending up in your spam folder.

As always, we look to tap into the energy and enthusiasm of our members for fresh ideas on how to maintain and advance the association. Please note, if you are interested in serving as an FHCEIAA board member in the future, kindly contact me or CAPT (ret) Dolecek so we can discuss the options.

It has truly been my honor and I have been humbled to serve as your president the past two years. I look forward to continue to serve as an active member and synergistically achieving extraordinary accomplishments together!

Sincerely,

Aaron P. Middlekauff, Pharm.D.
CAPT, USPHS
Office of Generic Drugs
Regulatory Project Manager
(240) 402-9812

GLOBAL HEALTH CARE OUTLOOK: SHAPING THE FUTURE

Group Assignment: Review Deloitte's 2019 "Global Health Care Outlook: shaping the future" and determine three top priorities for the senior leadership in the five federal health agencies (Army, Navy, Air Force, USPHS, VHA) including what steps to take within the next six months.

Group Members: COL Jean Barido, USA; COL Ted Brown, USA; Col Doogie Clydesdale, USAF; Lt Col Robert Corby, USAF; COL Chad Koenig, USA; COL Douglas Lancaster, USA; CDR Paul Michaud, USPHS; Col Camella Nulty, USAF; CAPT Regina O 'Nan, USN; LTC Christopher Pase, USA; Ms. Crystal White, VHA.

Introduction: Based on a review of the 2019 Global Health Care Outlook, it was determined that the five federal health services share the top three concerns: creating financial sustainability in an uncertain health economy; adapting to changing consumer needs, demands and expectations; and recruiting, developing and retaining top talent.

Priority 1: Creating financial sustainability in an uncertain health economy. The cost of health care continues to rise due to a myriad of reasons including factors of aging, increased population, labor costs, and technology. The federal health services operate under pressure from Congress to increase efficiencies and reduce costs. These significant financial constraints, along with an uncertain global health economy, affect all of the federal health services. This issue should be addressed through improved partnerships between the federal health agencies as well as civilian agencies. Sharing staff, locations (e.g. operating rooms), and patients will help underfunded and/or underperforming systems to improve. The integration of regional centers of excellence, focused on quality outcomes provides enhanced medical readiness platforms, ensures clinical proficiency, and expands internal referral opportunities.

Leadership of the Federal Health Services should re-vamp antiquated payment models. Active duty members have paid monthly premiums for Service Member Life Insurance since 1965 and Long Term Care Insurance since 2004. They have shouldered Thrift Savings Plan (TSP) administrative costs since 2002. While Defense Finance and Accounting Services (DFAS)-managed charges are optional, health care premiums are unquestioned. Active duty and family member cost-sharing via premiums, co-pays, and deductibles would lower over-utilization, increase efficiency, and create revenue streams. As an offset, Service Members and their families should be offered wellness incentives whereby they would receive cash rebates for preventive health visits (mammograms, step counters, vaccinations, etc.) similar to civilian wellness programs. This model already exists in our population for those living in base housing, who receive monthly cash-back for lower energy consumption. This 'skin in the game' approach motivates behavior toward more cost-conscious decision making on behalf of the patient and seeks a balance between health and system utilization.

Over the next six months federal health service leaders must work together in generating a dialog toward legislative changes that will expand partnerships within the federal sector and explore long-term solutions for value and outcome based cost sharing. Some examples include interoperable electronic health records, single federal billing system, standardized policies, procedures, and practice guidelines.

Priority 2: Adapting to changing consumer needs, demands, and expectations. With a focus on consumer-centric care and stakeholder (Congress) considerations, federal health services must merge efforts in the delivery of care. Our consumers deserve an integrated experience of care and a seamless transition of healthcare delivery across the federal health services. The Department of Veterans Affairs, Veterans Experience Office, along with OMB, have been designated the lead agency partner to set government-wide strategy and metrics for the customer experience.[1,2]
Merged delivery models, dedicated to readiness, must shift health efforts from episodic, illness-focused treatment to continuous, health supportive preventive care.
Steps to be taken:
1. Wherever possible, link federal health services:

- Create the expectation, not individual exceptions, for resource sharing (e.g. referral management and ancillary services) between federal health services
- Consider where providers and personnel could be embedded across services
- Identify barriers, specifically to referral, across systems and eliminate them whenever possible
- Leverage telehealth solutions to facilitate resource sharing

2. Validate the needs of populations served, promoting health in addition to health care

- Implement Total Force Fitness and similar efforts that emphasize supporting health and enabling readiness and performance.
- Leverage the use of technology to provide care in a manner and location that is least disruptive to the mission

Priority 3: Recruiting, developing, and retaining top talent. An aging workforce, increased demand on healthcare services, and a workforce concerned about work-life balance make it critical for organizations to recruit, develop, and retain a talented team. Developing a future workforce to keep pace with the population and meet access to care involves legislative and institutional reform.

Provide comprehensive strategy to manage work hours. Work life balance is increasingly relevant to today's healthcare professionals and is critical to the recruitment and retention of personnel. Provider burnout is a major cause for staff turnover which can be mitigated by recognizing the importance of managing work hours to provide this important balance. This strategy should assist in retaining team members by providing a more flexible lifestyle.

Federal health services need to adjust care models to utilize professional staff, as well as non-traditional support staff (i.e. corpsman or medic) to bridge the shortage of providers and share the risk of a complex health system. The standard of in-house medicine needs to shift to a remote care model by leveraging technology and centralization of providers. We need to shift our workforce paradigm to a collaboration of full-time, part-time, contract, and automation to maximize workforce potential and satisfaction.

Eliminate "up or out" process that requires employees to either seek promotion or move on. Allowing successful employees to remain in place in-lieu of requiring them to move to another, often times an administrative position, would likely increase both employee satisfaction and retention.

Conclusion. Although increased health care demand and expenditures are not unique to the federal health care services, we have a unique opportunity to shape the future. The Federal Health System is poised to bring down the health care cost curve through a shared vision focused on health versus sick care.

Health care is a people business, and quality of care depends greatly on having the right professionals with the right skills in the right place at the right time at the right cost.

References:

[1] Presidents Management Agenda (PMA), www.whitehouse.gov/wp-content/uploads/2018/03/presidents-management-agenda.pdf

[2] OMB A-11 Circular, section 280, www.whitehouse.gov/wp-content/uploads/2018/06/a11.pdf

Photo, left to right:
Boris Lushniak, MD, Dean, School of Public Health, University of Maryland.
USPHS attendees at the 134th Interagency Institute:
CAPT Brian Lewis
CDR Misty Rios
CDR Paul Michaud
CDR Nathan Mork
Dr. Lushniak spoke at the Institute on March 29, 2019.

CHANGING THE HEALTH CULTURE OF OUR COMMUNITIES

Group Members: Lt Col Bones Bode, USAF; CAPT Kevin Buss, USN; CDR Willie Carter, USN; Ms. Julia Cashel, VHA; CDR Matthew Dart, USN; Col Susan Dukes, USAF; CDR MJ Hessert, USN; Col Tiffany Morgan, USAF; CDR Nathan Mork, USPHS; COL Chip O'Neal, USA

INTRODUCTION

A significant portion of the burden of disease in modern society is due to behavioral and lifestyle factors. How extensive are those factors in the United States and what should be done to improve this situation? Problem statement: To what extent can we change the fitness/ health culture of a community?

BACKGROUND

The effects of unhealthy behaviors and lifestyles cannot be understated. In the United States, 70% of premature death is lifestyle related despite advances in healthcare. One cannot ignore this epidemic and the effect on society. The overall health outcomes of individuals are determined by 40% social and economic factors, 30% health behaviors, 10% physical environment and only 20% medical care. This lack of health is controllable and stems from our instant feedback society that does not consider long term risk versus reward (especially in our low socioeconomic population). This drives high cost healthcare instead of population health over time.

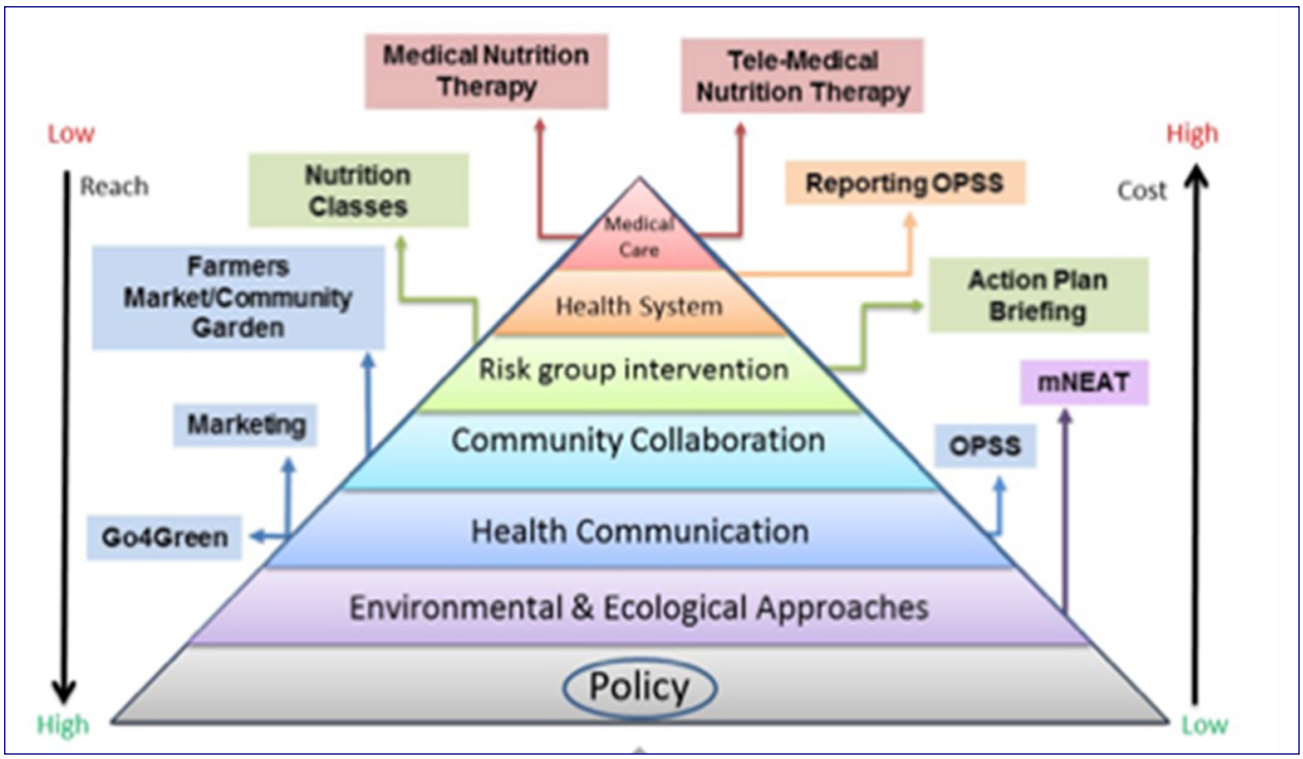
Widespread obesity degrades military recruitment, retention, readiness, resilience and retirement. Only 0.4% of Active Duty Soldiers meet all three recommendations within the performance triad of sleep, activity and nutrition. This contributes to a 12% non-deployable rate due to medical profiles. Overweight recruits have a 47% greater chance of injury while using 49% more healthcare in the first 90 days.

ASSESSMENT

The challenge remains to scale interventions at the community level. A whole-of-community, multi-faceted, systems-based approach is critical for success.

The construct below illustrates that increased collaboration between public health and primary care is required in order to create a unified voice to develop stronger strategies for improving neighborhoods for healthier living. Policy change, as indicated within the intervention efficacy pyramid, results in a higher impact at lower cost instead of inefficient/costly point of care options.

INTERVENTION EFFICACY PYRAMID



RECOMMENDATIONS

We propose a community approach that is rooted locally. Health professional education and training should amplify lifestyle and operational management considerations. This should be rooted in onboarding for all providers, be included in credentialing, and could include rotations with a dietitian. In the Patient Centered Medical Home model, an entire primary care team should center themselves during their morning meetings toward behavioral recommendations. Primary care teams at Fort Bliss in El Paso, Texas participated in several training events wherein care teams conducted training led by physical therapists and dietitians to reinforce this messaging.

For general education changes, we recommend amplifying behavioral and lifestyle choices in a manner that encourages personal freedom and the virtue of temperance. We believe that characterizing healthy choices as a way to avoid being impulsive – hence, a more aware and enabled citizen – could be a way that appeals to people who may otherwise avoid such interactions. In El Paso, the Fort Bliss primary care teams partnered with the local department of education to coordinate school visits, information fairs, and student competitions to encourage and reinforce healthy behaviors.

The most impactful approaches, however, rest in the community and generating their buy-in. We frame our community-based approach combining the Kotter[1] and Schein[2] models for organizational and cultural change taught at the U.S. Army War College:

(1) Create a sense of urgency. We aim to provide a quantified 'why,' a meaningful data in the vernacular to enable broad understanding. At the very least, creative advertising on billboards and the local news could generate curiosity and expose broad swaths of the population to meaningful data. If ~70% of the population is prone to obesity by the age of 35, then our main demographic may be high school and college age people who are still developing their personal habits.

(2) Create a guiding coalition. The face of a community-based approach should be local leaders, especially those who are interested in improving their own health by modifying their own behaviors. Incorporating visible leadership engagement and ownership may characterize our effort as a civic duty.

(3) Develop vision and strategy. Our approach requires community buy-in. El Paso Mayor Oscar Leeser described his vision as a patriotism, wherein more of El Paso's youth should qualify for military service.

(4) Strategically communicate change vision. The community may get excited about goals in the next five years. Local leaders can describe community health metrics they will specifically target and the estimated cost savings. Visible goals (decreased overweight population and obesity rates) could encourage the less visible (healthier eating habits).

(5) Empower broad based action. Lawmakers should consider incentivizing health, to include tax incentives for active steps or participating in 5K runs, replacing scooters with bike racks, and providing grants for food deserts.

(6) Generate short term wins. Providing feedback on the measures of effectiveness will reinforce the positive steps towards a healthier community.

(7) Consolidate gains. A few years into implementation, leaders should highlight community achievements and plan for the 2030 goals. At this point businesses may want to consider incentivizing healthy behaviors within their employees.

(8) Anchor new approaches. Using the money saved in health costs, leaders may want to create a central green space. Imagine a park, built by healthier living, which includes squat bars and walking trails as a visible, persevering result of the community's efforts.

CONCLUSION

Our approach involves changing the fitness and health culture of a community. Through local clinical education, general education, and community-based efforts, the aim is to teach the community and individuals to solve its own problems. Most behavioral interventions, in time, will create enduring impacts on community health. The key is cooperative, collaborative, and integrated solutions from community leaders and agencies that seek to improve lifestyles and personal choices as a civic, patriotic duty.

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[1] Kotter, J. (1996). Leading change. Boston, Mass.: Harvard Business School Press.

[2] Schein, E. (2004). Organizational culture and leadership. 3rd ed. San Francisco: Jossey-Bass Publishers.

CYBERSECURITY THREATS TO HEALTH CARE SYSTEMS: A HIEARCHY OF CONTROLS APPROACH

Group Assignment: Cybersecurity is becoming an increasing concern for health care systems throughout the world. How extensive are these threats, what is the nature of them, and what steps should be taken to deal with them?"

Group Members: CAPT Jessica Beard, USN; CAPT Sergio Chavez, USN; Col Andrew Cruz, USAF; CDR William Danchanko, USN; Col Sheryl Kane, USAF; Col Maximilian Lee, USAF; Col Dwayne Lemon, CF; CDR Misty Rios, USPHS; LTC/P Dennis Sarmiento, USA; COL Rebecca Terry, USA; COL Jennifer Wiley, USA.

Introduction. On April 3, 2019, DefenseOne.com headlines read: "Lies, a laptop, and malware at Mar-a-Lago; India's ASAT debris endangers ISS; AI for medicine; And a bit more."[1] From open source media to discussions during the 134th IAIFHCE, the range of cybersecurity threats spans information technology (IT) infrastructure, from satellites to mobile devices, to IT integrity with network, device, and data management innovations. Balancing ready access to information and force health protection, cybersecurity requirements must address these threats throughout the health care continuum, from the point of injury, through echelons of care, to definitive care in the MHS, VHA, and civilian settings. As such, identifying and mitigating cybersecurity threats to health care systems require a systematic and comprehensive approach.

Characterizing the Threat. Before discussing the extensive and increasing cyber threats, the difference between threats and vulnerabilities is described by the Health and Human Services (HHS) Task Force. "Threats may be internal or external, natural or manmade, intentional or accidental."[2] Vulnerabilities are those areas that may be exploited by a threat such as a person intentionally disrupting a easily accessible system or stealing vulnerable data. In order to mitigate cyber threats by directing financial and manpower resources, an understanding of the five most current threats must be understood. Attacks that originate from email are not new in the cybersecurity world, but the virulence and cost of recovery from each attack is estimated to cost an organization $2.2 million dollars per occurrence. The five security threats as defined by the HHS are:

- Email phishing attacks
- Loss or theft of equipment or data
- Attacks against connected medical devices that may affect patient safety
- Ransomware attacks
- Insider, accidental or intentional data loss

Email remains a vital component to communication throughout the world and healthcare. As our adversaries continue to evolve in sophistication and scope, phishing attacks consistently remain a distinct threat due to the low-cost and low-risk to send emails. The ability for health care professionals to access vital information is paramount to providing quality and consistent care, and ransomware attacks have the potential to disrupt both patient care and unit readiness data. As medical unit mobility both stateside and overseas increase, there is increased risk that the chain of custody, or the ability to maintain the security, will become compromised. Loss of equipment enables adversaries the access to means to compromise current equipment and establish backdoors to compromise networks. All of these cybersecurity threats allow network-connected medical equipment to become compromised and therefore place the safety of our patients at risk. The altering of data or tampering with any of these devices may endanger individual health in clinical care settings, and the collection of metadata poses a potential risk to force health protection. Other threats include inappropriate access and distribution of individual protected or private data, facilitated access to linked data sources, and disrupted operations impacting patient tracking and medical logistics. From a strategic perspective, restoring trust in compromised systems requires multi-echelon efforts.

Risk Reduction Efforts Through an Occupational Hazards Model. Applying the National Institute of Occupational Safety and Hazards' recommendations for controlling exposures to occupational hazards, we present an alternative approach through a Hierarchy of Controls approach to inform comprehensive cybersecurity efforts, applying the same diagrammatic concepts to control exposures to cybersecurity threats thereby protecting our patients, providers and organization from attack.[3]

A safety pyramid as a framework for improving cybersecurity in healthcare related to patient safety and their data is presented on the following page. Each element of the figure, from top to bottom, represents a decreasing effectiveness, but not necessarily a decreasing importance. Elimination is the best method but challenging to implement while Personal Protective Education/Equipment is the most frequently used but has lowest effectiveness.

Elimination
Decrease number of systems: the fewer systems, the fewer vulnerabilities for entry.
Phase out outdated systems: systems become vulnerable as they age with less patches for updates.

Substitution
Select electronic health records with security priority protocols.
Terminals vs. Computers systems closed to external devices (thumb drives, smartphones, other portable data).

Engineering Controls
Recognition of current controls in DoD: understanding and working with DoD IT security.
Explore Blockchain technology – augmenting local IT security, resistant to modification of the data.
Explore Artificial Intelligence and machine learning – augmenting system IT security centrally, resistant to new and emerging threats.
Centralized physical security.

Administrative Controls
Set appropriate permissions – role-based vs. specialty-based vs. team/unit/ward/floor/needs-based.
Data backup/integrity checks – back-up systems.
Proactive vulnerability assessment – "hack" ourselves through purposeful probing by dedicated cyber experts.
Develop data breach action plan – not if, but when breaches occur – SOPs/STRATCOM in place.

Personal Protective Education/Equipment
Ongoing end-user training/education and verification.
User access to IT security experts.

Humans play a critical role throughout the pyramid in mitigating and managing risk of "injury" to our healthcare IT infrastructure. Exploring how and where the engineering controls will play a role in cybersecurity represents an organized and coordinated approach to developing cybersecurity requirements.

A Way Ahead. Federal health care agencies have taken steps to combat cybersecurity threats, balancing operational security, data integrity, interoperability, and ready access to enable clinical care. These coordinated efforts include robust training for all end-users, strategic cybersecurity plans, and performing frequent back-ups.[4] Recommended efforts include: establishing and reviewing role-based access to individual systems in turn keeping access on a need-to-know basis, continuous monitoring to ensure user compliance with adaptive measures, and establishing specialized IT security teams to further mitigate risk. The authors submit that the NIOSH hierarchy could serve as a framework to enhance cybersecurity, to improve the safety and reliability of delivering health care, and to build trust among the stakeholders in the federal health care system.

References:
[1] https://www.defenseone.com/news/2019/04/the-d-brief-april-03-2019/156025/ accessed on 3APR19.
[2] Department of Health and Human Services, "Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients," May 2017; 13. https://www.phe.gov/Preparedness/planning/405d/Documents/HICP-Main-508.pdf accessed on 3APR19.
[3] https://www.cdc.gov/niosh/topics/hierarchy/default.html accessed on 3APR19.
[4] Hagland, M. "Special Report on Data Security: With the Ransomware Crisis, the Landscape of Data Security is Shifting," October 2016. https://www.hcinnovationgroup.com/cybersecurity/article/13026937/special-report-on-data-security-with-the-ransomware-crisis-the-landscape-of-data-security-is-shifting accessed on 3APR19.

Left: LTG Joseph Anderson, DCS, G-3/5/7, Department of the Army. LTG Anderson gave the opening address for the 134th Institute. He spoke to why health/healthcare is vital to support the force.

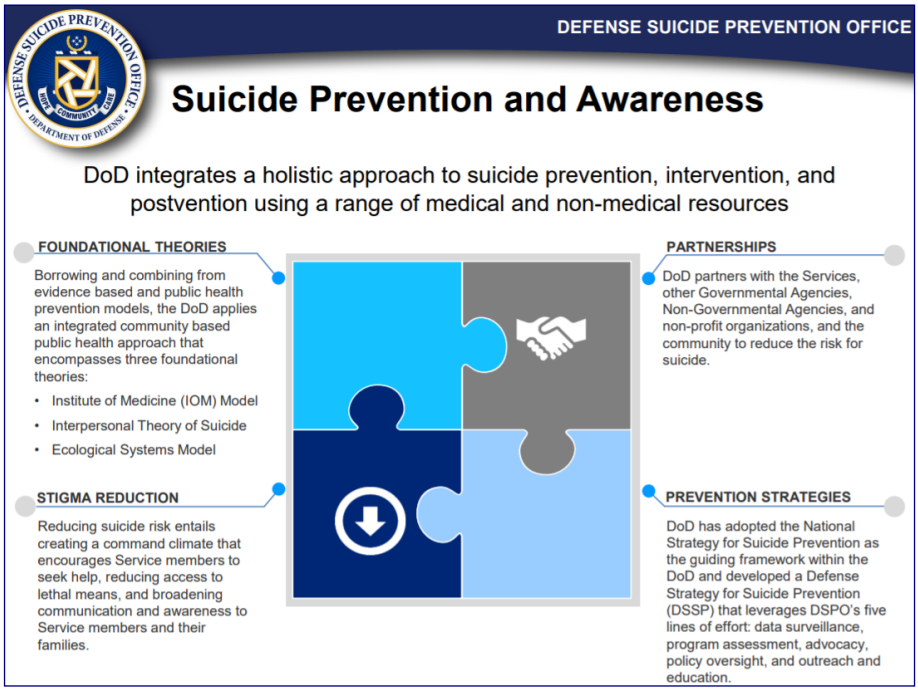
Right: Dr. Eric Schoomaker, LTG, USA Ret, Military and Emergency Medicine, USU, addressed Opioid Use and Pain Management at the Institute on March 29, 2019.

SHARPENING THE FOCUS ON RISKS AND PREVENTION OF SUICIDE IN THE MILITARY

Group Members: Col Rosemary Haley, USAF; Col Thatcher Cardon, USAF; Col Antonio Love, USAF; CDR Julie Conrardy, USN; Dr. Thomas Emmendorfer, VHA; CDR Kenneth Richter, USN, CDR Frederic Giauque, USN; COL Michael Belenky, USA; CAPT Brian Lewis, USPHS; Col Norm West, USAF

INTRODUCTION

Keita Franklin, Director of the Department of Defense (DoD) Defense Suicide Prevention Office summarized the broad scope of suicide risk factors as, "the culmination of complex interactions between biological, social, economic, cultural and psychological factors operating at the individual, community and societal levels." The complexity of factors contributing to suicide in the military has stimulated a DoD approach that includes a commitment to collaboration and cooperation to develop comprehensive suicide prevention efforts among diverse stakeholders, including the federal agencies; public, private and international entities; and institutions of higher education. This has allowed DoD to widen and sharpen its focus on many relevant touchpoints as illustrated in the figure below. [1]



Our group wanted to sharpen its focus and put forward recommendations from our perspective in four areas: cultural factors, leadership, resiliency, technology and the overuse of opioids currently under examination in the military and the entire nation.

CULTURAL FACTORS: RISKS FOR SUICIDE AND GROUP RECOMMENDATIONS

Numerous cultural and healthcare-related factors broaden the scope of how we understand escapist or self-destructive behavior. We live in an "instant gratification culture", which is particularly true of Millennials, where immediate satisfaction is expected at the expense of resiliency. Reality TV and social media create technology-centric lifestyles which all tend to shorten the line of sight of our young Service Members. At the same time, in medical treatment settings, contemporary values and expectations inadvertently promote a shared target of absolute zero mental or physical pain. By concentrating on pain rather than health, the medical establishment is amplifying the expectation of a "zero pain" culture. In order to reverse the tide, care delivery models will need to be adjusted to provide increased clinical time supporting patient education and expectation. To meet the mission, a better and wider spread utilization of physician extenders will be required as well.

LEADERSHIP: RISKS FOR SUICIDE AND GROUP RECOMMENDATIONS

DoDI 6490.08, Command Notification Requirements to Dispel Stigma in Providing Mental Health Care to Service Members, specifies that the minimum amount of information necessary for providers to present Command Teams to support the safety of their personnel. The DoDI identifies a great deal of information as "minimally necessary" to allowing providers to generally be forthcoming with all relevant information. Communication with line leaders can be a unique challenge for mental health providers. This challenge can be more easily navigated with an awareness of the importance of balancing communication with privacy and a willingness to seek consultation in complicated cases. Additionally, the line leader must invest the time to know their personnel at a level of detail and intimacy that transcends all ranks and occurs on and off-duty. Making the effort to facilitate this cooperative discussion between Command Teams and the medical provider has the potential to markedly improve care, ensure high-risk personnel are identified and appropriately monitored, and ultimately improve the Commander-Provider relationship.

RESILIENCY: RISKS FOR SUICIDE AND GROUP RECOMMENDATIONS

There are many definitions for the term resilience but for today's discussion we are going to use the universally accepted definition of resiliency to mean the ability to bounce back following a stressful event (Wald et al. 2006). In addition, we looked at resilience through the eight Total Force Fitness Domains that were published by the RAND corporation which are:

- Psychological
- Social
- Spiritual
- Medical
- Environmental
- Nutritional
- Physical
- Behavioral

Some of these domains components of resiliency are collected through PHAs and MHAs but the data is not utilized to change resiliency programs or tools and therefore we see this as a gap. Research on resiliency indicates that resilience is not a fixed attribute and can change over time so we also recommend it be measured at multiple times in one's life especially during times that bring change or induce stress (PCS, Deployment Cycle, Societal Effects, Family History, Educational Level, Economics, Work Schedule) with care to avoid stigmatisms.

While we acknowledge the efforts the DoD has placed on implementing resiliency training programs and tools in an effort to reduce drug abuse and suicides but recommend an emphasis be placed on developing outcome measures for these programs and most importantly, develop a tool to measure individual resiliency.

We believe that the development of a validated measure of resilience for individuals is a worthy and reachable goal especially with a focus of decreasing suicide and drug abuse. This measure is important to evaluate effectiveness for all of the DoD resilience training programs and tools. There is a well described list of objective history items that are known to increase risk for suicidality and drug abuse that forms the kernel of the tool. The tool is administered by computer or app. In this format a screening question could be automatically followed by more in-depth evaluation as appropriate.

The instrument might be required at regular times for everyone. As a universal requirement it would not be stigmatized by its assignment to specific individuals. Also members could self initiate if desired. This tool would then provide a snapshot of each individual with their long term past history and current condition for the consideration of leadership such as commanders and first shirts as well as healthcare providers.

Individuals who appear to be at high risk could be observed more carefully and efforts applied as indicated in the areas showing deficits. Individual data is aggregated to show trends in groups for possible group training or other intervention. As the tools are used over time, specific correlations could be made for an iterative improvement process for individuals as well as populations.

LEVERAGING TECHNOLOGY FOR IMPULSIVE BEHAVIORS: A 2017 study conducted at Vanderbilt University Medical Center created a machine-learning algorithm using hospital admission data to include age, gender, zip code, medications and diagnostic history to predict the likelihood of any given individual taking their own life. The study included 5,000 patients who had been admitted to the hospital for a self-harm attempt or intention. The algorithm predicted with 84% accuracy attempt of suicide within the next week. Psychiatrics are a little better than a coin toss is predicting suicide attempts. Application of this technology, while imperfect, offers the opportunity to capitalize on the promise of machine learning to quickly analyze seemingly disparate data points in order to better predict people who are more at risk for suicide.

OPIOIDS: RISKS FOR SUICIDE AND GROUP RECOMMENDATIONS

Collectively, uncontrolled pain, distress and functional impairments make for a terrible quality of life for patients and their families, increasing the risk for overdose, substance abuse, and suicide. The health care system must identify and broadly respond to the many challenges of pain management through policies supporting clinical monitoring, education and training of health professionals and teams, and expansion of clinical resources and programs. The approach to managing opioid over-use fits into this plan and needs to employ four broad strategies to address the opioid epidemic: education, pain management, risk mitigation, and addiction treatment.

Reference:

[1] Defence Suicide Prevention Office Brief, Defense Health Board ,Director DSPO, November 1, 2016

REDESIGNING THE MILITARY HEALTH SYSTEM

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Introduction: The Armed Services stand ready to embark on an unprecedented healthcare reform. Budgetary constraints and manpower drawdown have forced the Military Healthcare System to rethink patient care "without a box" delivering precision healthcare in new, innovative ways. The challenge before our leaders is how to develop a medical system that can deliver comprehensive care for Active Duty, Families, Retirees and Guard/Reserve forces, while we recruit, train and provide professional development to health care professionals on a foundation of advanced informational technologies.

Background: Given the opportunity to redesign the health care platforms from a Joint Force view, the group first developed a vision to provide a seamless Military Health Care System that maximizes all federal partnerships across beneficiary populations, in a fairly distributed way, at the least overall cost. The Active Duty member is garnered into this system at accession (with or without dependents) and seamlessly transitions at separation or retirement into a lifelong health care system. Given this challenge, five main premises must be established to provide this holistic approach to modern Military Medicine.

"Our system" = the Utopia Health System

Solution:

Integrate Medical IT Platform(s) and Tool(s): Our system features a robust IT platform (i.e. cloud based) encompassing the electronic health record which integrates tools to improve care combining sensors and automated controls that expand available information. It optimizes care processes across multiple health platforms, sources of health care entry points and real-time applications delivering comprehensive care. Additionally, the system provides holistic training opportunities, visualization platforms and educational experiences to the patient and provider.

Comprehensive Healthcare for Active Duty in garrison and deployed: Our system is designed to maximize the health readiness of Active Duty members from recruitment through retirement. Recruiters and Junior ROTC programs work with potential recruits on physical fitness and healthy lifestyle choices. Accessions programs use robust screening processes to optimize the health of the force at the time of accession.

Once on Active Duty, members receive preventive, primary, and rehabilitative care as close to the workplace as possible to minimize lost work time and other operational impacts. For more complex care, the system leverages expertise of Active Duty, Reserve/Guard, and civilian healthcare professionals, maximizing the use of public-private partnerships to improve access and quality of care.

At all levels, technology improves access to information and care through transparent recordkeeping, asynchronous messaging, and real-time telemedicine. Features include easy-to-use automation for pharmacy, lab, and radiology services. Most importantly, systems ensure real-time communication of readiness information to service members and commanders.

Comprehensive Healthcare for Family Members and Retirees: Our system is designed to either leverage partnerships with local health networks or, in austere health care areas, leverage military health facilities to meet the needs of family members. Once accessed into the system, dependents receive primary care through public-private partnerships utilizing healthy lifestyle programs from Military Service specific entities and local non-for-profit organizations in conjunction with the Active Duty members. These services transition upon retirement of the sponsor to a traditional insurance fee-for-service program.

Upon retirement, service members transition into a lifelong care system that seamlessly integrates Veterans Health Administration and Military Health Service capabilities. This combined healthcare system leverages preventative, primary and rehabilitative care systems improving access to care progressive stages of life.

Recruit, Train, Professional Development: A key priority of our health care system is our staff as we believe healthcare professionals are our most important resource. It is the diversity of our staff that makes us strong. To ensure we have the most highly trained and qualifies professionals, our health care system is committed to recruitment, life-long

learning and retention. Through robust training and professional development programs, we will develop a loyal, productive staff who provide cutting edge, evidence-based, high quality healthcare.

We will leverage loan repayment and bonuses to recruit and sustain the country's top Active Duty, Reserve and civilian physicians, nurses, licensed independent practitioners, administrators, medics, corpsmen, technicians and support staff. We look to be the number one choice for employment and professional satisfaction and known for robust mentorship, state of the art technology, IT tools and interoperability with our civilian partners.

Reserve and Guard Personnel Eligibility and Dependents: Reserve and National Guard personnel will be provided full health coverage during periods of Active Duty service. These members will be highly incentivized to purchase insurance through offering a significantly discounted rate for beneficiaries during non-Active Duty times. This reduced cost insurance coverage will bridge the readiness gap due to the health care variability of coverage between Active Duty and non-Active Duty service.

These service members may more likely maintain improved health through regular health maintenance and screenings in synchrony with the active component service members. Additionally, funding for the health system could be supplemented through third party collections when the service member is not on Active Duty.

Deployed Medicine: Deployed medicine would function as it does today with acute care, combat injury, mental health and operational (Aerospace/Undersea) medicine structures, each service and mission specific, with emphasis on flexibility, scalability, and interoperability between services.

Conclusion: As we embark on redesigning the tenants of a comprehensive Federal Health Care System for all beneficiaries, we must constantly look to new and innovative ideas that can be adapted to meet the needs of beneficiaries in garrison and in the battle space. With the solid foundations of recruitment/training platforms and relying on the current construct of deployment medicine, we will create an organizational and financial structure that will carry federal healthcare into the future.

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