OUR *HEALTH*, OUR *FUTURE*

43RD SURGEON GENERAL, UNITED STATES ARMY

Serving To Heal...Honored To Serve

May 2014

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WO1 Russell with his wife and children, take an evening stroll in their neighborhood as part of their Family time. (Photo courtesy of U.S. Army MWR)

"Ultimately, resilience is...improving the performance of our most valuable resources – Soldiers and their Families."

Honorable John McHugh
Secretary of the Army

"We will build the comprehensive physical, mental, emotional, and spiritual resiliency of our Soldiers, Civilians, and their Families to enable them to thrive personally and professionally."

General Ray Odierno
Chief of Staff of the Army

Introduction

As a Nation, we are faced with challenges everywhere we look – from financial and job uncertainties to increasing rates of preventable diseases. In times of challenge, there are also opportunities – opportunities to re-examine how we conduct business, how we care for those around us, and how we think about health.

Over the last 12 years, Army Medicine supported and conserved the fighting strength of an Army at war in two simultaneous theaters of conflict. Wars have always transformed the practice of medicine on and off the battlefield. Lessons learned from wars have driven research, innovation, and established treatment guidelines to advance medicine and combat casualty care to unprecedented levels. These advancements have increased survival rates, improved recovery, and enhanced life after injury. But now, after one conflict has ended and another is coming to a close, it is time for us to reset and transform Army Medicine. We need to capture lessons learned, prepare for the challenges ahead, increase readiness and resilience, and strengthen the health of our Nation by improving the health of our Army.

"In all of these men and women – in all of you – we see the strength, resilience, and the sense of purpose that have always defined the United States of America. And that too, is what the American people reflect upon today – for it is in these timeless qualities that we find hope for a better world, and a better future."

Honorable John McHugh
Secretary of the Army

1st Lt. Matthew Anderson, an infantry platoon leader with an injured lower leg, tries out the fit of an adjusted Intrepid Dynamic Exoskeletal Orthosis brace as Ryan Blanck, the brace's creator, watches him walk at the Center for the Intrepid in San Antonio, TX. Anderson returned to the center to have one brace adjusted and get fitted for another. (Photo by DoD Linda Hosek)

"In times of challenge, there are also opportunities – opportunities to reexamine how we conduct business, how we care for those around us, and how we think about health."

Lieutenant General Patricia D. Horoho
U.S. Army Surgeon General
Commanding General,
U.S. Army Medical Command

Soldiers select fruit as they hurry through a cafeteria line at Fort Leonard Wood, MO. The Army plans to get new recruits into better shape with a revamped approach to health, fitness and diet at basic training. (U.S. Army photo)

Medics from Headquarters and Headquarters Company, 2nd Battalion, 503rd Infantry (Airborne), bandage a local Afghan boy after he was hurt carrying wood near Forward Operating Base Joyce, Konar Province, Afghanistan. (U.S. Army photo by Sgt. Corey Idleburg)

Current Landscape

There are many challenges facing the state of our Nation. Among these challenges are budgetary pressures and overall declining physical health. Army Medicine is particularly sensitive to these challenges but also uniquely positioned to address them. These challenges impact the shaping of the future of Army Medicine.

The health status of the Nation as a whole is intertwined with Army Medicine's partners in health, the population that we provide care to who are equally responsible for healthy choices that impact their health. This population includes Service Members, Families, Retirees, and Civilians. We have a duty to maintain the health of our partners and readiness of the entire Force despite the realities of external challenges. Our mission has not changed, but our strategy must evolve.

To meet these challenges, Army Medicine is transforming from a healthcare system to a System for Health. Whereas a healthcare system focuses on the treatment of injuries and illness, a System for Health proactively focuses on improving the health and wellness of our partners in health. Our transformation to a System for Health supports the Nation's Healthy People 2020 Initiative[1] to improve the health of all Americans and the Army's Ready and Resilient Campaign[2] to increase the readiness and resilience of the Force. Army defines resilience as "the mental, physical, emotional, and behavioral ability to face and cope with adversity, adapt to change, recover, learn and grow from setbacks." Thus, our System for Health will ensure Army Medicine remains a vibrant, affordable organization contributing to the security of our Nation. The Performance Triad, basic behaviors of Sleep, Activity, and Nutrition, is a key element within the System for Health. It is one of the fundamental changes to optimize performance, resilience, and health in support of the following four priorities for Army Medicine.

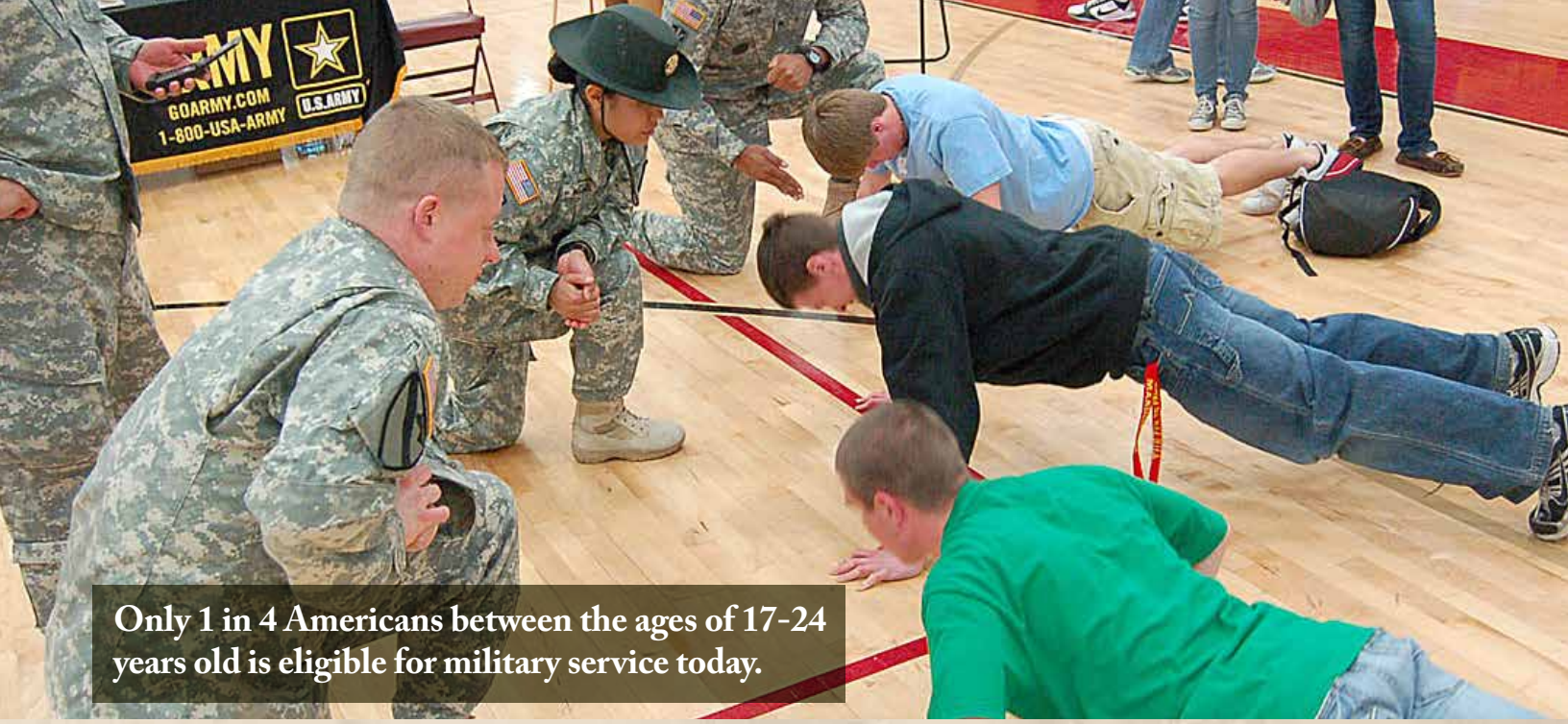
- **Combat Casualty Care:** Army Medicine personnel, services, and doctrine save Service Members' and DoD Civilians' lives and maintain their health in all operational environments.

- **Readiness & Health of the Force:** Army Medicine personnel and services maintain, restore, and improve the deployability, resiliency, and performance of Service Members.

- **Ready & Deployable Medical Force:** Army Medical Department personnel who are professionally developed and resilient, and with their units provide the highest level of healthcare in all operational environments.

- **Health of Families & Retirees:** Army Medicine personnel and services optimize the health and resilience of Families and Retirees.

Army Medicine's intent is to provide responsive and reliable healthcare, positively and proactively improve readiness and resilience, and influence the health of all our partners in health. Army Medicine will maintain, restore, and improve readiness, save lives, and advance wellness of those entrusted to our care. Our challenges will be shaped by the mission ahead as we focus on influencing the health of our partners. We will strengthen the health of our Nation by improving the health of our Army.



Only 1 in 4 Americans between the ages of 17-24 years old is eligible for military service today.

Recruiters and drill sergeants challenge Fond du Lac High School students to do as many push-ups as possible within 60 seconds during Pathway to Success, a fitness promotion run by the Milwaukee Recruiting Battalion. (U.S. Army photo by Jorge Gomez (USAREC))

A Case for Change

Our Nation is facing a health crisis. According to the Centers for Disease Control and Prevention, this could be the first generation of children in the U.S. that has a shorter life expectancy than their parents. Seven out of ten Americans will die each year of a preventable illness such as heart disease, diabetes, stroke, or cancer. The Centers for Disease Control and Prevention also predicts that by the year 2050, 1 out of every 3 Americans will have type 2 diabetes.[3]

The decisions we make every day determine *if*, not *when*, we will develop preventable life-threatening conditions. It is our choice.

We spend more than any other Nation on healthcare, yet we are becoming less and less healthy.[4] Obesity is increasing and tobacco use and substance abuse are still major issues among both children and adults. Chronic diseases are the leading causes of preventable death in our Nation, and the cost of our healthcare is simply not sustainable.

The Nation's current disease-centric healthcare system focuses on treating illness and adversely impacts the cost of care. Ultimately, it also impacts the readiness of our Army and our Nation's security.

Less than 1 in 4 Americans between the ages of 17-24 years old is eligible for military service today.[5]

The health of our Nation and the health of our military are not separate.

Three out of four are disqualified because of medical, weight, or legal problems with the majority for medical or weight issues – that's 75% unfit for service. This is a clear and present danger to our National security.

Since the health of our Nation and the health of our military are not separate, Army Medicine wants to fundamentally change the dialogue about health, moving the conversation from a healthcare system to a System for Health. It is shifting from a disease-centric to a health-centric conversation for healthy behaviors. This transformation requires engagement and collaboration with all our partners in health.

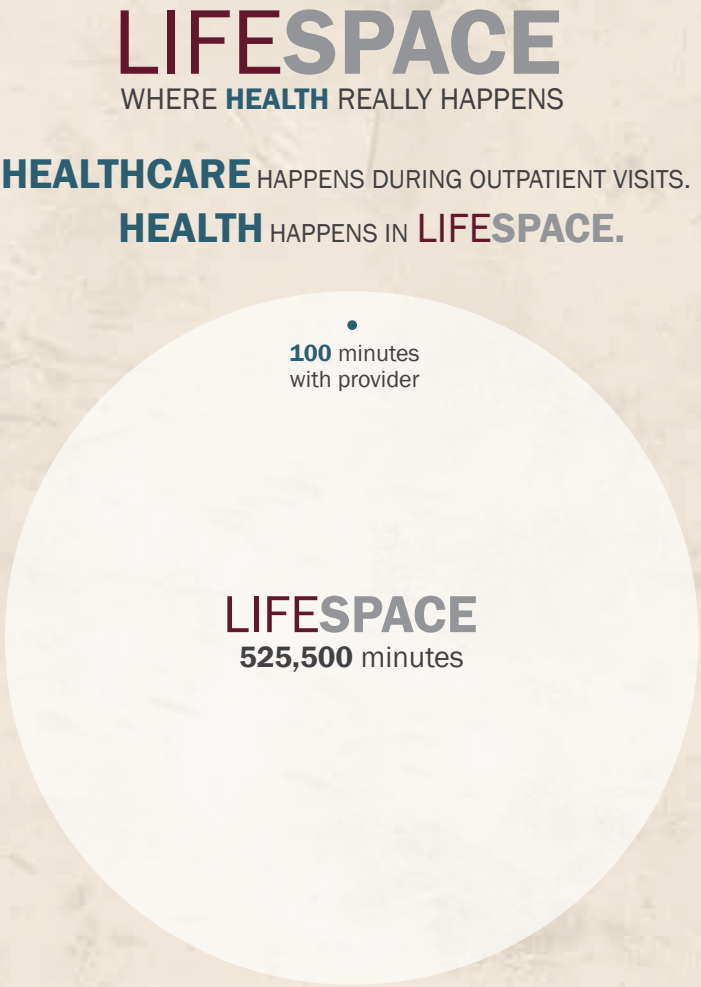
Army Medicine is able to provide some of the best healthcare in the world. It has been and always will be our duty to stand alongside our partners in health from point of injury through rehabilitation and recovery, fostering a spirit of resiliency. Even though our Nation faces challenges, these challenges provide an opportunity for Army Medicine to lead the cultural change in how we **think, act,** and ultimately, **influence** health.

> **"When health is absent, wisdom cannot reveal itself, art cannot manifest, strength cannot fight, wealth becomes useless, and intelligence cannot be applied."**
>
> *Herophilus, Alexander the Great's physician and military advisor, 335 BC*

It's All About Health

In Army Medicine we have a strategy – a way forward. We call it the Army Medicine 2020 Campaign Plan. We are moving from a healthcare system – a system focused on injuries and illness – to one focused on health and wellness as a part of a System for Health. The System for Health still addresses injuries and illness, but the main focus is on health and wellness. Health is vital to maintain, restore, and improve our physical, mental or thinking abilities, and social well-being.

Where does health really happen? It happens with the healthy decisions we make outside the brick-and-mortar walls of our hospitals and clinics – in an area called the Lifespace. A typical person visits a provider five times a year with each visit lasting about 20 minutes.[6] That means the average time spent on injuries and illness is 100 minutes in a year. This time may or may not include conversations on healthy behaviors. The other 525,500 minutes or 360 days of the year is our Lifespace. It is our time at work and school, our time at home with Family and friends. The Lifespace is where we can improve our healthy behaviors. It also includes opportunities where we can influence our Family and friends.



The white circle represents 525,600 minutes in a year of life. 100 of those minutes is time spent with a healthcare provider, leaving 525,500 minutes of Lifespace.

6… 21… 150… what do these numbers mean to you?

Within the concept of Lifespace, we have an initiative called the Performance Triad that promotes healthy behaviors and informed decisions. The three pillars of the Triad are Sleep, Activity, and Nutrition – a focus on sleeping well, being active, and eating better. When they all work together, they generate a positive and synergistic effect on health. Improving Sleep, Activity, and Nutrition behaviors optimize the performance of the body and brain. Performance means being better spouses, parents, and Soldiers, not just scoring high on the physical fitness test or running a marathon. Performance includes improved mental or thinking abilities, our work and Family relationships, and overall resiliency.

We all know that sleep is important, but we rarely get enough of it. The average American gets 6 hours of sleep or less per night.[7] Sleepy people make poor decisions that can be catastrophic. Studies have repeatedly demonstrated that 24 hours without sleep or a week of sleeping less than 6 hours per night results in the same cognitive impairment as a person with a blood alcohol content of 0.08%.[8,9] This is legally drunk in most states. Do we want a drunken person driving our children to school, do we tolerate a drunken Service Member at a security checkpoint, or drunken provider performing surgery? When we wake up tired, our thinking abilities are compromised; we are more sedentary and unmotivated, and we crave high-fat and

A U.S. Army sniper of C Company, 3rd Battalion, 66th Armor Regiment, Task Force 228, 172nd Infantry Brigade, keeps watch in the early morning hours while his battle buddy catches a few precious minutes of sleep. Task Force 228 was on a joint mission with the Afghan National Army and the Afghan Border Patrol in the mountains near the Pakistan border. (U.S. Army photo by Spc. Ken Scar, 7th MPAD)

"I tell my Soldiers that sleep is ammunition for your brain. You would never go on a patrol with an empty magazine. Sleep is the ammunition your brain needs."

Brigadier General Willard Burleson, U.S. Army

sugar foods. Not only is sleep essential to the brain for learning and memory, it is also a key to health.

We also know that we need to be more physically active in order to be healthy, yet 21 hours per day are spent either sitting or being inactive.[10] We know that eating a lot of sugar and fatty foods is not good for us, but the average American consumes 150 pounds of refined sugar each year.[11]

For the first time, Army Medicine is looking at using the basic behaviors of Sleep, Activity, and Nutrition to increase performance, improve resilience, and positively influence health – health of all our partners.

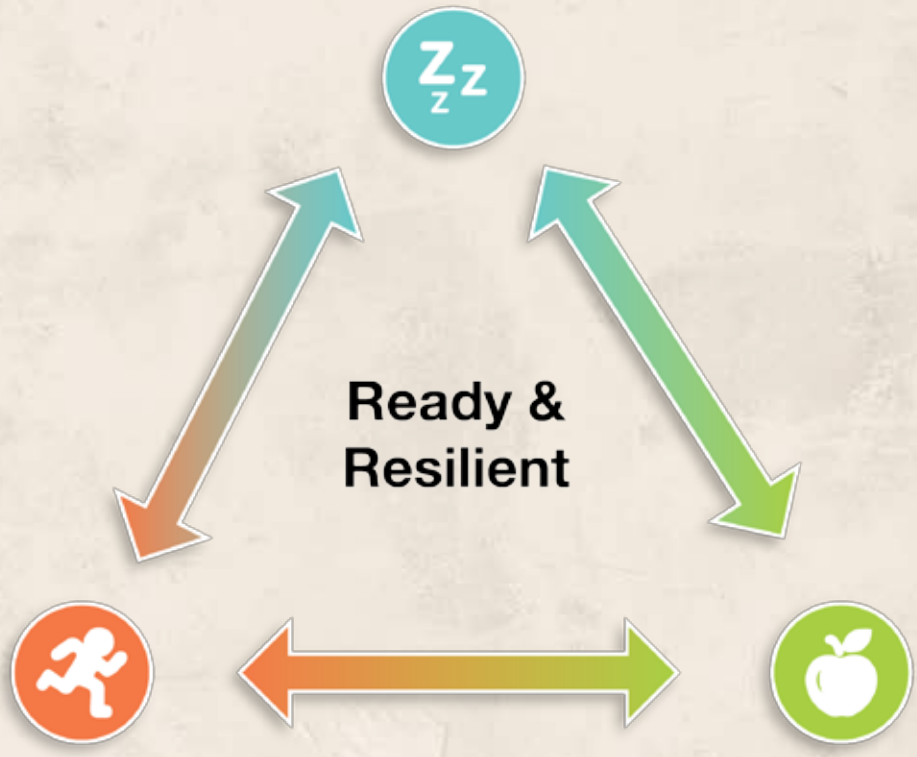
By focusing on these three behaviors in combination – not isolation – we can directly impact our physical and thinking performance and improve our overall health.

In addition, every aspect of health – physical and behavioral – can be positively impacted if we look at ways to improve Sleep, Activity, and Nutrition behaviors. Personal behavioral changes, such as making healthy choices, lead to societal changes and ultimately, change our culture to one that embraces health and wellness.

A System for Health is All About Health.

Sleep 8 to be great!

TARGET: Get quality 8 hours sleep every 24 hours.



Sit Less and Move MORE!

TARGET: 10,000 steps/day with 10 minutes of walking every hour.
150 minutes of aerobic exercise/week.
Resistance training 2x/week.

Eat for Performance

TARGET: Eat 8 servings of fruits and vegetables.
Eat 3 meals with refueling every 4-5 hours.
Drink 8 cups or 64 ounces of water.

What Can You Do?

Everyone has an active role in how we think about health, act to improve health and performance, and influence the choices of those around us.

Start by thinking about your current Sleep, Activity, and Nutrition behaviors. Are you getting the recommended 8 hours of quality sleep every night? What is the frequency and variety of your daily activity? Does your activity level meet the goals of at least 10,000 steps per day with a goal of 10 minutes of walking every hour spread throughout the day, at least 150 minutes of aerobic exercise per week, and resistance training at least twice per week? Do you follow a good performance nutrition plan? Does your daily plan include the recommended 8 servings of fruits and vegetables, eating at least three meals with a goal of refueling every 4-5 hours when awake, and drinking at least 8 cups (64 ounces) of water?

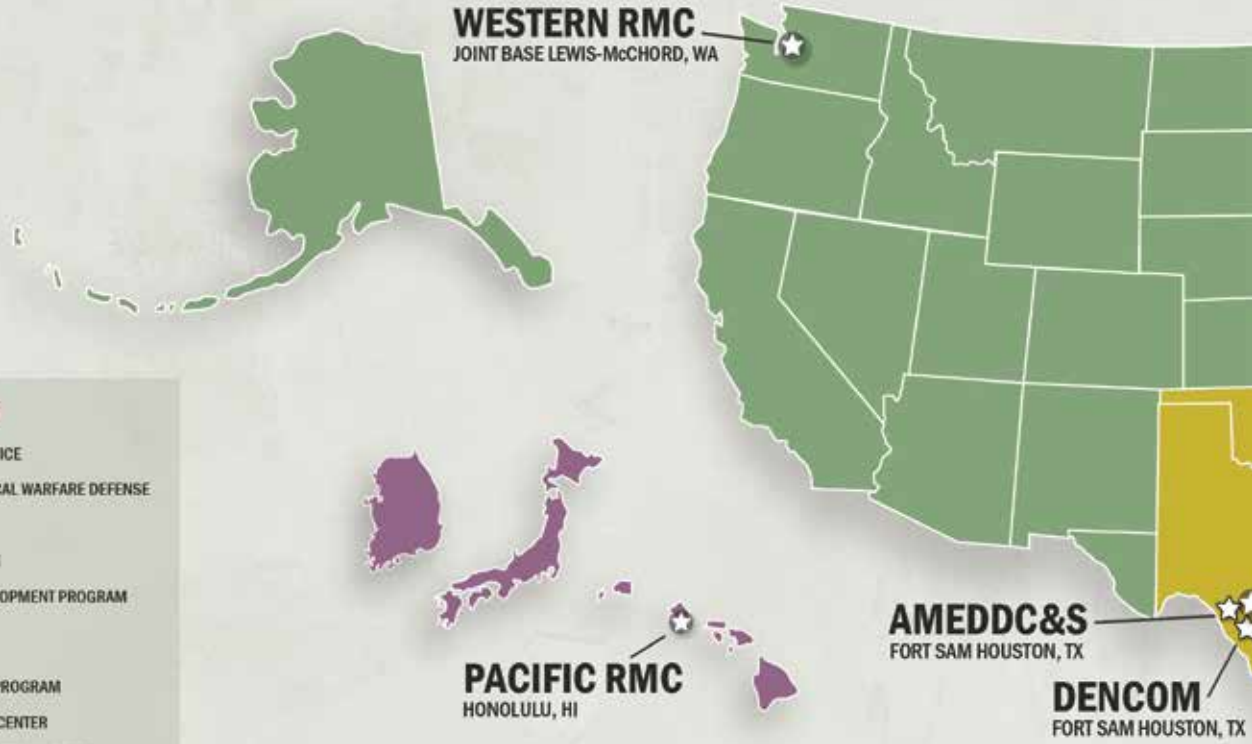
Make it a new norm to think of and act to improve Sleep, Activity, and Nutrition behaviors as a foundation for health.

During this challenge of personal change, consider leveraging technology. Smart phone health applications, social media, and behavior monitoring devices are widely available and can be used to assist behavioral change. It also makes challenges fun! Some helpful websites are listed at the end of the booklet. Visit the Army Medicine website to learn more about Performance Triad behaviors at **www.armymedicine.mil**.

It is through working together to change our Sleep, Activity, and Nutrition behaviors in our Lifespace that we will start to transform our culture and become a System for Health. This transformation will not be easy, and will require persistent effort and support from every member of our partners in health. But, together we can improve the health, readiness, and resilience of our communities, the Army and our Nation.

Strengthening the health of our Nation by improving the health of our Army.

Serving To Heal…Honored To Serve



DOD EXECUTIVE AGENCIES

- ARMED SERVICES BLOOD PROGRAM OFFICE
- IMMUNIZATION PROGRAM FOR BIOLOGICAL WARFARE DEFENSE
- DOD VETERINARY SERVICES PROGRAM
- DOD MILITARY IMMUNIZATION PROGRAM
- JOINT MEDICAL EXECUTIVE SKILLS DEVELOPMENT PROGRAM (EA UNDER REVIEW)
- BLAST INJURIES
- ANTHRAX VACCINATION IMMUNIZATION PROGRAM
- ARMED FORCES HEALTH SURVEILLANCE CENTER
- ARMED FORCES MEDICAL EXAMINER SYSTEM AND THE NATIONAL MUSEUM OF HEALTH AND MEDICINE
- DEFENSE CENTERS OF EXCELLENCE FOR PSYCHOLOGICAL HEALTH AND TRAUMATIC BRAIN INJURY

WWW.OAA.ARMY.MIL/AEA_FUNCTIONS.ASPX

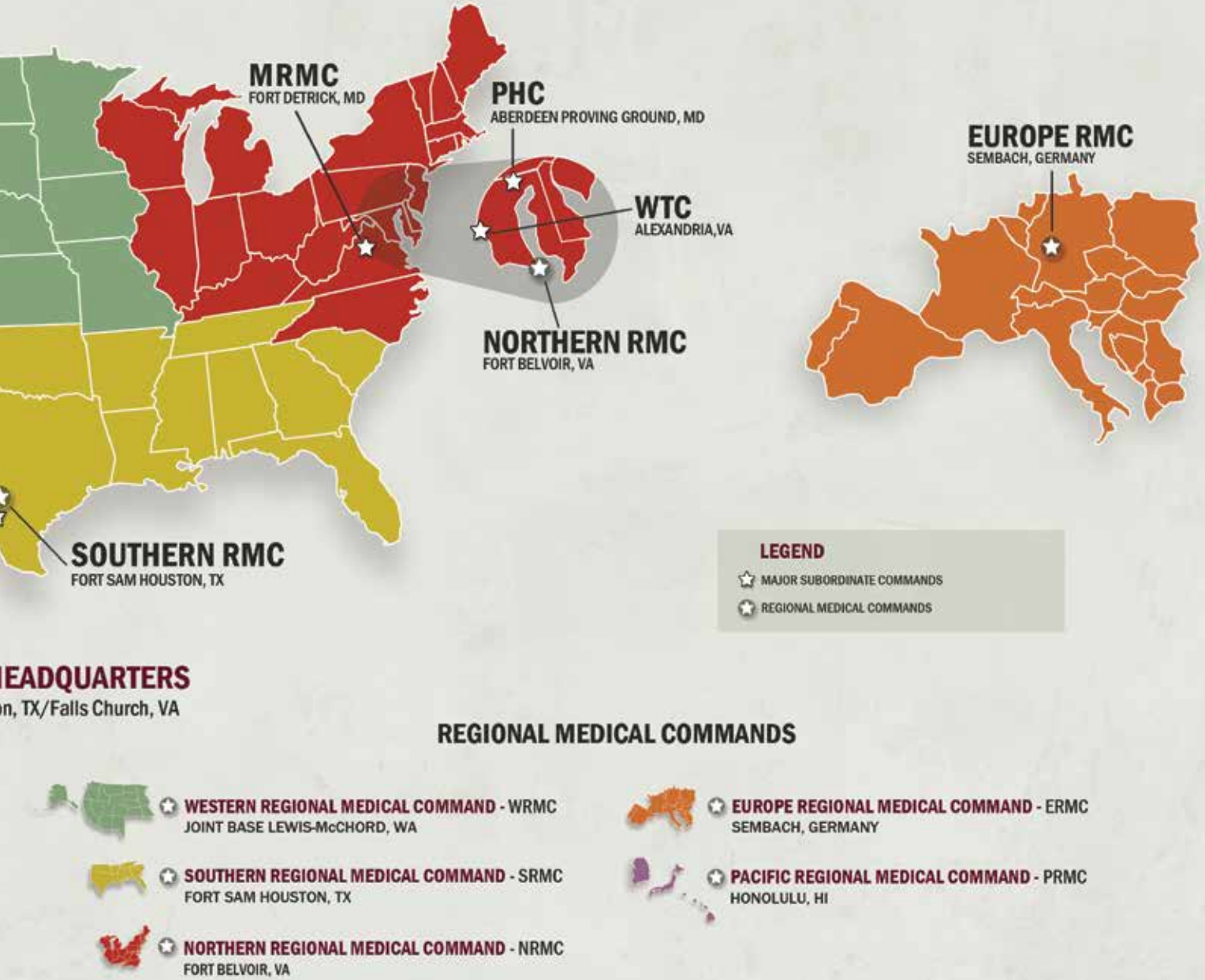
MAJOR SUBORDINATE COMMANDS

- **U.S. ARMY MEDICAL DEPARTMENT CENTER & SCHOOL** - AMEDDC&S
  FORT SAM HOUSTON, TX
- **U.S. ARMY DENTAL COMMAND** - DENCOM
  FORT SAM HOUSTON, TX
- **U.S. ARMY PUBLIC HEALTH COMMAND** - PHC
  ABERDEEN PROVING GROUND, MD
- **WARRIOR TRANSITION COMMAND** - WTC
  ALEXANDRIA, VA
- **U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND** - MRMC
  FORT DETRICK, MD

Army Medical Department

The Army Medical Department (AMEDD) is a global System for Health in five continents. It has a diverse range of capabilities and assets, all focused on the mission of preserving and providing compassionate care to our partners in health. The Army Surgeon General is responsible for policy, organization, and management of an integrated Army-wide health services system. In addition, The Surgeon General oversees joint field operational activities for the Secretary of Defense with Army medical units being key players in many joint deployments and exercises. When the U.S. Army Medical Command (MEDCOM) was established in 1994, The Surgeon General became dual-hatted as the Commanding General, U.S. Army Medical Command. MEDCOM is organized into ten Major Subordinate Commands (MSCs) and cares for more than 3.87 million people. Activities within MEDCOM are inextricably linked to both Army and Joint Services readiness and resilience.

In addition to providing outstanding patient care throughout the five Regional Medical Commands and Dental Command, the MEDCOM's MSCs perform vital missions to maintain, restore, and improve the health of our partners in health. The



AMEDD Center and School trains our medical personnel and serves as a 'think tank,' with a mission to envision, design, and train a ready and deployable medical Force in support of our National security. The U.S. Army Medical Research and Materiel Command (USAMRMC) conducts innovative medical research to keep Army Medicine at the forefront of both health and healthcare delivery. USAMRMC includes six research laboratories and five subordinate commands that focus on medical materiel advancement and development, strategic and operational medical logistics, and medical research and development contracting. The Warrior Transition Command's mission is to develop, coordinate and integrate the Warrior Care and Transition Program for wounded, ill and injured Soldiers, Veterans, their Families and caregivers in order to promote future success in the force or in civilian life. The U.S. Army Public Health Command missions include workplace safety and health, healthy living, health surveillance and evaluation, deployment and environmental health, emergency preparedness and response, laboratory sciences, food and drinking water protection, and animal medicine. All of these capabilities ensure that the AMEDD is ready and relevant to the Army and joint mission priorities.

Army Medical Department Leadership

LTG Patricia D. Horoho
The Surgeon General and
Commanding General,
U.S. Army Medical Command

CSM Donna A. Brock
Command Sergeant Major,
U.S. Army Medical Command

MG Brian C. Lein
Deputy Surgeon General/
Deputy Commanding General, Operations
U.S. Army Medical Command

Mr. Uldric L. Fiore, Jr.
Chief of Staff, Office of The Surgeon General
and U.S. Army Medical Command

BG(P) David E. Wilmot
Deputy Commanding General, Support/
Assistant Surgeon General, Force Projection
U.S. Army Medical Command

Notes

1. www.healthypeople.gov/2020/default.aspx
2. www.army.mil/readyandresilient
3. www.cdc.gov/chronicdisease/overview/index.htm
4. www.oecd.org/health/health-systems/health-at-a-glance.htm
5. www.missionreadiness.org/2009/ready_willing
6. www.cdc.gov/nchs/ahcd/web_tables.htm#2010
7. www.sleepfoundation.org/article/press-release/national-sleep-foundation-2013-international-bedroom-poll
8. Dawson D and Reid K. Fatigue, alcohol and performance impairment. Nature. 1997; 388: 235-237.
9. Bonnet, MH and Arand, DL. Clinical effects of sleep fragmentation versus sleep deprivation. Sleep Medicine Reviews. 2003; 7: 297-310.
10. www.ergotron.com/tabid/95/ItemID/264/Default.aspx
11. www.usda.gov/factbook/chapter2.pdf

Other Websites

Army Medicine
- www.armymedicine.mil
- http://phc.amedd.army.mil
- https://armyfit.army.mil
- http://csf2.army.mil/armyfit.html

Sleep
- www.sleepfoundation.org*
- www.nhlbi.nih.gov/about/ncsdr/index.htm
- www.cdc.gov/sleep
- www.aasmnet.org/practiceguidelines.aspx*

Activity
- http://hprc-online.org*
- www.exerciseismedicine.org*
- www.myfitnesspal.com*

Nutrition
- www.eatright.org*
- www.choosemyplate.gov
- www.loseit.com*
- www.sparkpeople.com*

* The above links do not constitute endorsement by the U.S. Army of non-U.S. Government sites or the information, products, or services contained therein. Although the U.S. Army may or may not use these sites as additional distribution channels for Department of Defense information, it does not exercise editorial control over all of the information that you may find at these locations.

armymedicine.mil

Loyalty Duty Respect Selfless Service Honor Integrity Personal Courage